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Established in
AUSTRALASIA, 1885

No. 2,013. Vol. XC.

AUGUST 24, 1918.

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A delicate fragrant Rose compound for Perfumes, Toilet Preparations, Rose Water, etc. ... **25/-** per oz.

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A Substitute for Oil of Orange Flowers... .. **7/6** per oz.

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BENZOINETTOL. For Perfuming Benzoin Creams, Lotions, etc. ... **5/-** per oz.

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GERANETTOL. Artificial Geranium Oil **1/6** per oz.; **20/-** per lb.

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Special preparations of the above, miscible with oil, can be supplied for Brilliantines.

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NOTICE TO CHEMISTS.

Please cut out and keep this page for reference, as many of the prices have changed and, owing to the shortage of paper, this price list is only issued occasionally.

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Absorbent and Antiseptic.

	Retail.	Wholesale.
	per pkt.	per gross
"Y. W." ...	1/3	12/4
Size 1 ...	1/6	14/10
" 2 ...	2/-	20/-
" 3 ...	2/6	25/-
" 4 ...	2/6	25/-
" X ...	3/3	32/1
" 5 ...	3/6	35/-
" XX ...	3/6	35/-
" "Blue" ...	3/6	35/-

Southalls' Compressed Towels.

	each	per gross
Size B ...	-2/-	20/-
" C ...	-2 1/2	25/-
" D ...	-3	30/-

Southalls' Suspenders.

Shaped.

	each	per doz.
No. O ...	-9	6/11
" 1 ...	1/6	13/10
" 2 ...	1/9	16/2

Adaptable.

	each	per doz.
No. 1 ...	1/3	11/6
" 2 ...	1/9	16/2
Corset ...	-8	6/2

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	each	per doz.
No. O (White Waterproof)	1/6	13/10
" 1 " " "	2/-	18/6
" 2 (Silk and Waterproof)	4/-	36/11

Southalls' Sanitary Knickers.

	each	per doz.
Lawn and Waterproof ...	4/11	45/8
Silk and Waterproof ...	7/6	69/8

Southalls' Directoire Knickers.

	Retail.	Wholesale.
	each	per doz.
	5/6	50/9

Southalls' Knicker Shields.

No. 1 (Medium) ...	-9	6/11
" 2 (Large) ...	1/3	11/6

Southalls' "Day or Night Tidy."

2 11 ...	27/2
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Southalls' Containers.

	per pkt. of 12	per doz. pkts.
	1/6	13/10

Southalls' Accouchement Sets.

	each	each
Size 1 ...	17/6	13/7
" 2 ...	35/-	26/11
" 3 ...	70/-	53/10
" 4 ...	100/-	76/8
" 5 ...	160/-	123/-

Southalls' Accouchement Sheets.

	each	per doz.
22x18 inches ...	1/9	16/2
28x25 " ...	2/9	25/4
33x33 " ...	3/9	34/7
36x36 " ...	5/-	46/2

Southalls' Binders.

	each	per doz.
Unstretchable (Cotton Twill).		
12x60 inches ...	3/6	32/3
14x60 " ...	3/6	32/3
16x54 " ...	3/6	32/3
18x54 " ...	4/-	36/11

Southalls' Macintosh Sheets.

No. 1 (30x36 ins.)	4/6	41/6
" 2 (60x36 ")	8/6	78/6

Southalls' Double-proofed Bed Sheets.

No. O (45x36 ins.)	10/-	92/3
" 1 (48x36 ")	16/6	152/3
" 2 (72x36 ")	24/-	221/6

Southalls' Baby Cot Sheets.

30x18 in.

	Retail.	Wholesale.
	each	per doz.
No. 1 (Single proofed) ...	2/9	25/6
" 2 (Double proofed) ...	6/6	60/-

Southalls' Infants'

"Knapkenette."

	per pkt.	per gross
No. 1 ...	4/-	36/11
" 2 ...	5/-	46/2
" 3 ...	7/-	64/7

Southalls' Baby Knickers.

	each	per doz.
No. O Small } Medium }	1/9	16/2
No. 1 Small } Medium }	2/3	20/9
Large }		

Southalls' Nursing Aprons.

No. O (21x30 ins.)	2/3	20/9
" 1 (27x30 ")	3/9	34/10
" 2 (30x36 ")	4/9	44/-

Southalls' Nursery and

Toilet Powder.

1/3 ...	11/6
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Southalls' "Kenilworth"

<u>Violet Powder.</u>		<i>White and Pink.</i>	
No. 1	...	-9	7/-
" 2	...	1/6	14/-

Southalls' "Albol" Soap.

	per box of 3 tablets	per doz. boxes
	3/9	33/10

Southalls' Nursery Cream.

	each	per doz.
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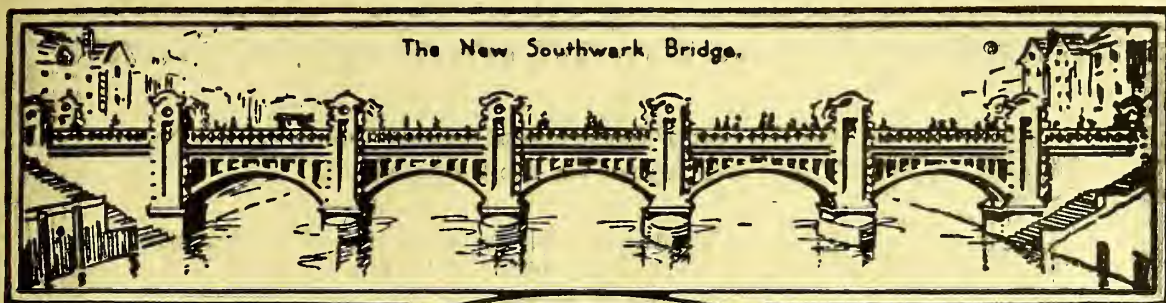
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Amidopyrin	Puriss	Lithol (Ichthyol	Quinine Ethyl Carbonate
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Benzoic Acid	Creosote Carbonate	Menthol	Salicylate of Soda
Benzoate of Soda	Formaldehyde	Mercurials	Salol
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Beta Naphthol	Guaiacol Carbonate	Methyl Salicylate	Tannic Acid
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Bromide of Sodium	Homatropine	Phenazone	Terpine Hydrate
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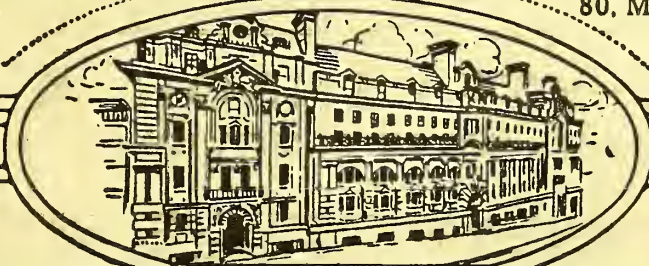
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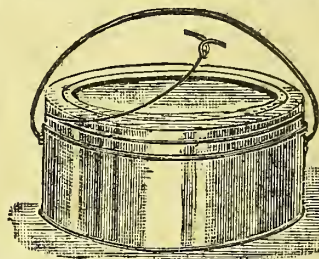
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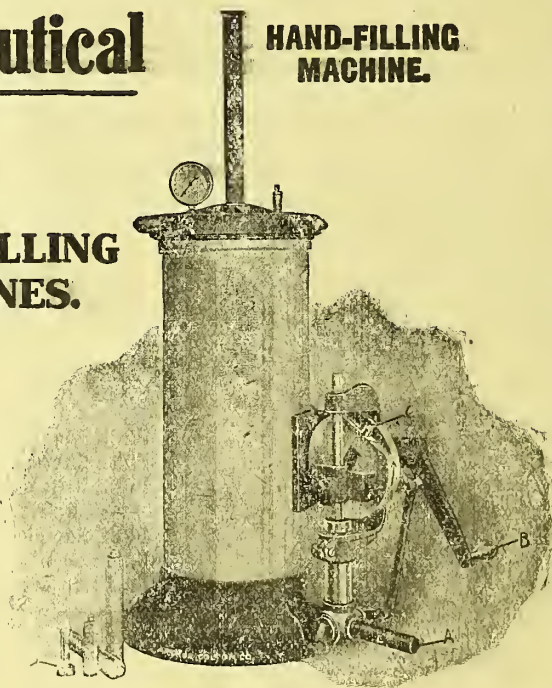
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**HAND-FILLING
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**MEDICINAL
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Glass Bottles

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Panels, Coffees, Sauces,
Cordials, Crystal Bottles,
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SEND US YOUR INQUIRIES.**

TOM LAYCOCK & CO.

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Don't worry!
I'm here

**KEATING'S
KILLS**

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Tins 1" 3" 6" 12"

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MANUFACTURED BY

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The question is often asked nowadays. The Chemist who does not stock Sister Luras Food is missing a good line.

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It makes milk digestible and is invaluable in cases of malnutrition.

It is a thoroughly reliable line and one that brings a handsome return.

Price 1/- & 2/6 per tin.

Samples and advertising matter free on application.

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possessed of the elusive fragrance of Diadem Cream, adheres readily to the skin. Made in Blanche, Naturelle, Rachel, and Rose tints. Packed in large artistic boxes, in the distinctive Robartes style and colouring. A sure seller.

a cream of rare purity and charm, put up in novel white globes which have an irresistible appeal and packed in dainty boxes in Robartes' attractive style. Handsome profits for you in selling.

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Diadem Cream

Advertised and Minimum Retail Price . . . 2/6
Trade, per doz. 20/-

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Window and Counter Materials free on request. Write for particulars.

Special Notice and Offer to the Trade.

Each jar of Diadem Cream contains the following notice:—"On returning 6 of these empty Diadem jars to any Chemist or Hairdresser in the United Kingdom, a new 3.9 size jar will be given you free in exchange."

Upon any of our trade customers therefore returning to us 6 of these empty jars, carriage paid, we will immediately forward in return, post free, 2 (3.9 size) jars of Diadem Vanishing Cream.

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The liquid hair remover

The intelligent depilatory. Simple, safe and effective. Pleasant and harmless. Invaluable during the décolleté vogue. Daintily packed.

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The Dainty Deodorant

An attractive line that enjoys good sales. A greaseless Cream that takes the odour out of perspiration. Daintily packed in opal jars.

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Trade 20/- per doz.

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Wholesale and
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Best Quality Only.

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THE WAR OFFICE.****EXPORT.**

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CAMEL HAIR BRUSHES

FOR ALL ART AND MEDICAL PURPOSES.

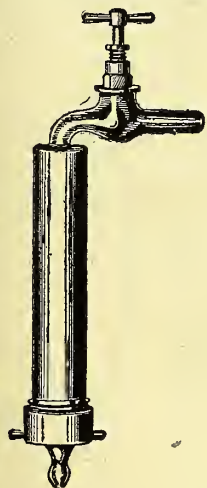
*Throat, Nose and Ear Brushes a Speciality.***PERCY P. BAKER,**

Works: WALTHAMSTOW, ESSEX; and at ISLINGTON, N.

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PURE DRINKING WATER.



The Pasteur Chamberland Filter.

OFFICIAL GOVERNMENT
STATEMENT:Wherever the **PASTEUR
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TYPHOID FEVER has
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SOLE MAKERS:

The British Pasteur Chamberland Filter Co.
5 WHITE STREET, FINSBURY,
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12/- PER DOZEN.

Carriage paid on full and empties.

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5% discount Monthly settlement.

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'FARRISOL' **White**
Medicinal Oil,
—ENGLISH MADE—
(PARAFFINUM LIQUIDUM). **B.P.**

Guaranteed to exactly conform to B.P. tests.

RECOMMENDED AND ADOPTED BY THE HIGHEST MEDICAL AUTHORITIES.
ABSOLUTELY ODOURLESS AND TASTELESS.

**FARRIS'S GENUINE REFINED
PARAFFIN WAX & SCALE,
PETROLEUM JELLY,
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CERASINE, &c. &c.
AT COMPETITIVE PRICES.**

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Large Stocks for immediate delivery.

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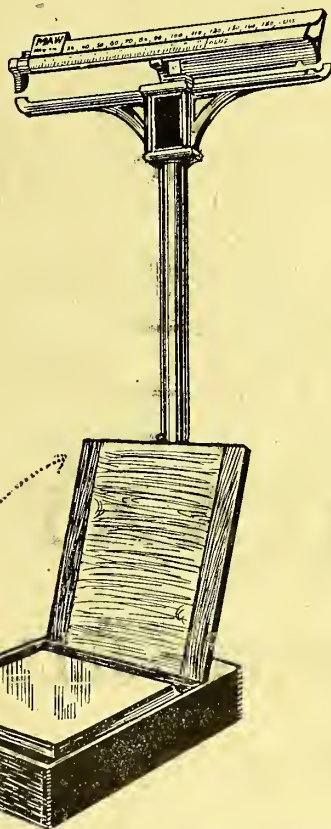
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Maw's

Page.

NUMBER 358.

AUG. 24, 1918



Covers for Weighing Machine Stands

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"FREE WEIGHS."

By the use of one of our Covers abuse of the Weighing Machine is made impossible. It is made in stout nicely grained polished mahogany—to match the shop-fittings—and the outside measurements are $18\frac{1}{2}'' \times 12\frac{1}{2}'' \times 4\frac{1}{2}''$ deep. It is well put together in our own workshops. All joints are dovetailed, so that strength is ensured. The lid is fitted with brass spring catch. The Cover will fit either of our Weighing Machines Fig. B3870/R, B3831/R and Fig. B3832/R.

The Cover forms an elegant addition to the pharmacy. By its use the Weighing Machine is perfectly protected, yet quickly accessible, it only being necessary to raise the lid when it is required to weigh customer.

PRICE **7/6** EACH.

EFFECTUAL! CHEAP! YET RELIABLE!

Vaporiser and Night-Light Lamp.

For the vaporisation of Carbolic Acid, Thymol, Eucalyptus,
and other Disinfectants

IN TINWARE **6/6** PER DOZ.

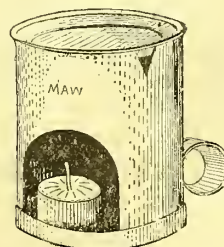


B3833/R

Nickel-plated Copper Money Box & Padlock

for attachment to
the pillar of
Weighing Machines,
 $4 \times 4\frac{1}{2}''$ in.

6, 6 EACH,



HOURS OF BUSINESS: 8.30 a.m.—5.30 p.m.

CLOSE AT 1 p.m. SATURDAYS.

Petroleum Jelly

White, Yellow, Amber,
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MEADE - KING, ROBINSON & CO.
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Salvo Petrolia

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in qualities, white, lemon, yellow
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Packed in barrels, kegs and smaller
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of **BRITISH MANUFACTURE**, and
buyers may rely that for quality and
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Other Grades

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Samples and prices on application.

"OLEUM DEELINÆ," a certain cure for Eczema.

Phone: 186 Bootle.

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**LABORATORY
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LONDON AGENTS:

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**CHAPOTEAUT'S
CAPSULES of
PHOSPHOGLYCERATE
of LIME.**

**THE BEST TONIC FOR
FORTIFYING AND BUILDING UP
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*Sold by all Chemists,
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CAPSULES

MORRHUOL DE CHAPOTEAUT
is extracted from cod-liver oil, and
contains all its efficacious proper-
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*It cures Coughs, Bronchitis and Catarrh,
restores the appetite, and gives force to
feeble persons.*

SOLD BY ALL DRUGGISTS.

**CHANDRON'S
DROPS**

(Gouttes des Colonies)

**A harmless antiseptic
preventative against CHOLERA-
FERMENTATION - INDIGESTION
and other intestinal disturbances.
SOLD BY ALL CHEMISTS**

*I find the odor exquisite and
well as charming & have called
by my name. Feb. 1908
Mary Garden*

PARFUM

**MARY
GARDEN**

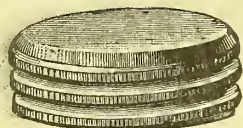
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Collapsible Metallic Tubes

For Artists' Colours, Tooth Pastes, Lanoline, &c.



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FOR

Perfume Bottles and Hair Washes.

METAL CAPS

FOR

Glass Jars and Toilet Preparations.



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1

BRITISH MADE TIN FOIL

Highly polished foils—printed, lacquered, embossed or plain.
Guaranteed free from lead for tobacco, cigarettes, food-stuffs, etc. In sheets or reels—large or small quantities.

Also collapsible tubes in pure tin, pure lead or lead-coated with tin for rubber solution, artists' colours, tooth pastes and other toilet preparations.

Manufactured by

Venesta Ltd.
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1868 to 1918

"A perfect Emulsion"

—The Pharmaceutical Journal.

A bit better



Whatever we do, we try to
do it
"a bit better"

Our Cod Liver Oil Emulsion
is just that bit better that
makes all the difference.

The Star,
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series cover most of the
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Emulsion. Have you
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instance of our bit-better policy.

Our Labels are good to look upon
and the range of styles will certainly include one
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description of our labels is perhaps an under-
statement.

MAY WE SEND YOU SPECIMEN
LABELS AND A SAMPLE OF
THE EMULSION ?

Cod Liver Oil
Emulsion
in bulk or packed.
Don't wait for the rush—
stocks are depleted!

AYRTON, SAUNDERS & CO. LTD
Manufacturing Chemists
LIVERPOOL



THE WORLD'S KEENEST BUYERS WILL TELL YOU THAT THE SUREST WAY TO ATTRACT LADIES TO YOUR ESTABLISHMENT IS TO STOCK AND SHOW THE EVAN WILLIAMS' ORIGINAL HENNA SHAMPOO

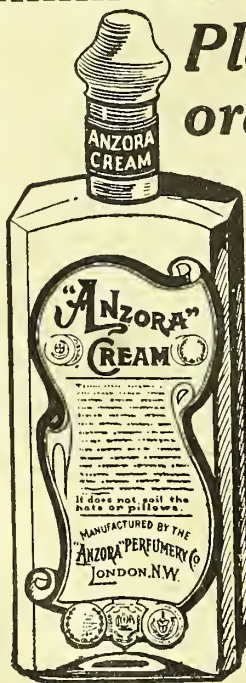
The demand for this Perfect Shampoo is increasing by leaps and bounds, and as a selling proposition there is nothing to equal it.

Our Special Campaign of Publicity is now in full swing. This aims at bringing ladies to your establishment, and includes post, press, and window advertising. Write to-day for full particulars



The **EVAN WILLIAMS CO., Ltd.** 18 & 18a Ogle Street, Foley St., London, W. 1.

(4)



Place your orders Now

to ensure delivery ready for the autumn rush. We are making every effort to cope with orders and deal with them in strict rotation. "First come, first served." We have bigger premises & bigger staff than we ever had before to cope with the growing demand for Anzora. By careful organisation and still further extension of premises, we hope soon to meet every order promptly.

TRADE TERMS
11/6 per dozen
retailing at 18/6
19/6 per dozen
retailing at 30/-

Anzora Perfumery Co.,
28, 32, 34 Willesden Lane,
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ANZORA
HAIR CREAM

EVANS' AUTUMN LINES.

MALT & OIL
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EVANS' PASTILLES
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SAVARS HOT WATER BOTTLES
SAVARS "FERVEX" TISSUE
SAVARS VACUUM FLASKS
SAVARS "VAP."



KEEP UP YOUR STOCKS.

INCREASING POPULARITY OF "HARLENE HAIR DRILL."

EVERY DAY EMPHASISES THE NECESSITY
FOR MEETING THE PUBLIC DEMAND.

The widespread publicity initiated by the Proprietors of "Harlene" over a number of years and vigorously maintained right up to the present time, in spite of many difficulties and increasing expense, continues to draw an immense response from all parts of the country. Thousands of sample parcels are dispatched daily, thus increasing the number of possible customers to retail stores everywhere.

HAVE YOU A GOOD STOCK OF "HARLENE HAIR DRILL" PREPARATIONS ?

NOTE.

The Contents of the
Free HARLENE OUTFITS
comprise :

1. A Trial Bottle of Harlene.
2. A "Cremex" Shampoo Powder.
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4. Book of Instructions.



**FOLLOW THE
TIDE OF
SUCCESS.**

Watch the great
Free Gift
Advertising
Campaign
that brings the
Customers to
your shop.

No Chemist or Store can afford to be without this unique line of Toilet Preparations.

"HARLENE" FOR THE HAIR	"ASTOL" FOR GREY HAIR
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ALL-BRITISH
NAILSTONE

is hardly ever absent from the orders our travellers take from Chemist friends throughout the country, neither does the business direct show any sign of decreasing; indeed, it is much on the other side. The trouble is to get the demand satisfied expeditiously. This shows how much the Perro "nailshine" is appreciated, and incidentally the ease with which it is sold.

OUR OFFER

is to send you along some PERRO soon as possible—in neat one-dozen show counters, to the extent of . . .

3 DOZEN PERRO

This will give no less than a P.A.T.A. profit of 66⅔%. Also

HALF-DOZEN FREE.

That makes the profit still more munificent.

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OLD SWAN LANE, LONDON, E.C.4

Just a one-dozen box on your counter, and the same in your window and sales begin. . . .



Then there's the big P.A.T.A. profit, amounting to *never* less than 66⅔%. . .

PER **4/6** NOTE THE PROFIT **7½d.** P.A.T.A.
DOZ. EACH

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THE FINEST BRITISH LANOLINE YET PRODUCED

IS MANUFACTURED BY

THE PHARMACEUTICAL LANOLINE CO.

7 Carnwath Road, Fulham, London, S.W.

WHO INVITE INQUIRIES.



In the BEST Circles
SEMREH
BOTTLE CAPS
are used exclusively because they add a **SMART SET** to any stopper, cork or sprinkler.
Self-Fitting & Fixing.
Details from
The VISCOS
Development Co., Ltd.
BROMLEY, KENT.
Prompt dispatch can at present be given.

Milner's Chemical Co., Liverpool.

TO-DAY'S PRICES.

"MILNER CLEANER"	3d	6 doz. 10/- net	12 doz. 19/- net
For white straw hats.			
"PLANO"	3d	12/- net	23/6
For chapped hands and roughness of the skin.			
"RAILOX"	3d.	12/- net	23/6
Nit and Lice destroyer.			
"RAILOX."	7½d.	5/3 per dozen	(Garr. paid).

DISCOUNT.—On orders of 20/-, 2½%; £5, 5%; £10, 7½%.

SPECIAL OFFER.—13 to the dozen for CASH WITH ORDER.

SAVE 3/- PER GALLON BY BUYING GUARANTEED GENUINE NEWFOUNDLAND NON-FREEZING MEDICINAL COD LIVER OIL OF NEW SEASON'S MAKE.

Highest possible quality in smell, taste and colour, comparing most favourably with the finest Norwegian. Manufactured from the finest fresh Cod Liver on same day as fish caught.

WHOLESALE ONLY.

Kindly write for sample to

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Telegraphic Address: "JOB LIVERPOOL"

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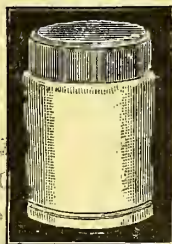
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Established 1780.

WE are making Lamp-blown Glassware, such as Ampoules, Hypodermic Tubes, &c., in England. Let us have your inquiries. You will find our prices competitive and our deliveries smart. Besides, we also have varied stocks of Glass Bottles. Send us your inquiries and ask for our Stock List.

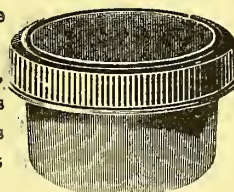
Stocks kept of Porcelain Pomades with celluloid caps, 1, 2 and 4 oz.

Octagon Pomades in Porcelain (1 & 2 oz.) can also be supplied. Write for prices.



Sole Agents for the
"SOLIDITE"

Composition Corks,
made in various sizes
and colours. Samples
and prices will be sent
on application.



JULES LANG & SON, Charlton Works, Charlton Place, ISLINGTON, LONDON, N. 1.

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Sole Proprietor:
FERNAND-RENE LANG.

*Any
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Neutral Glass Ampoules

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HYDROKINONE, ACID PYROGALLIC, AZOL—The Active Developer,
SODA SULPHITE, SODA CARBONATE, POTASS. BROMIDE,
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DEVELOPERS, TONINGS, &c., for AMATEUR TRADE,
Packed in CARTRIDGES, PACKETS, SCALOIDS & SOLUTIONS.



MOUNTANT. FLASHPOWDER.
VARNISHES.

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Clinical and Chemical Thermometers of high quality a special feature.

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Immediate Delivery. Wholesale and Export.

ELASTIC GUM SURGICAL INSTRUMENTS.



Catheters and Bougies, in Black or Brown Gum, and Finest Silk Web. Specula, Rectal and Oesophageal Instruments,
Horse Catheters and Cattle Probangs. Wholesale and Export only. *Price List from the Manufacturers.*

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Particulars of a course in the above subject are given in the part-time prospectus in Chemistry, forwarded free on application. The course prepares students for the minor examination of the Pharmaceutical Society of Great Britain; it is held on Wednesdays and extends over two years.

The first year course prepares students for the examination for the Manchester Pharmaceutical Association Scholarship held on the third Tuesday in June.

The session 1918-19 will begin on Monday, September 30. Students will be enrolled during the week beginning Monday, September 23.

Liverpool School of Pharmacy

Principal: H. HUMPHREYS
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Recommended by the
Liverpool Chemists' Association.

Minor REVISION COURSE, AUGUST 19.
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APOTHECARIES' HALL COURSE, AUGUST 15.

TUITION is PERSONAL, THOROUGH and UP-TO-DATE.

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Full particulars from the Principal, 18 Colquitt St., Liverpool.

At the last Examination held by THE SOCIETY OF APOTHECARIES

for the granting of the Assistant's
Diploma, our **PASS LIST** was

100%

"THERE'S A REASON."

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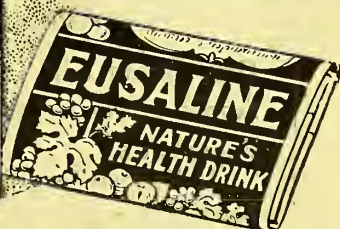
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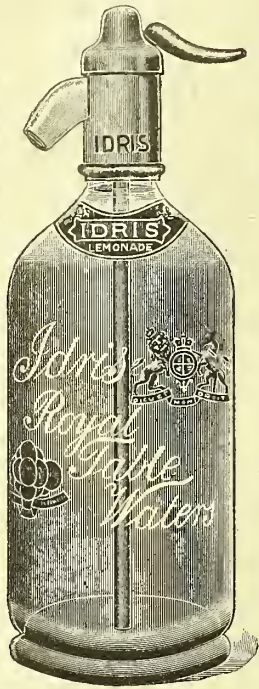
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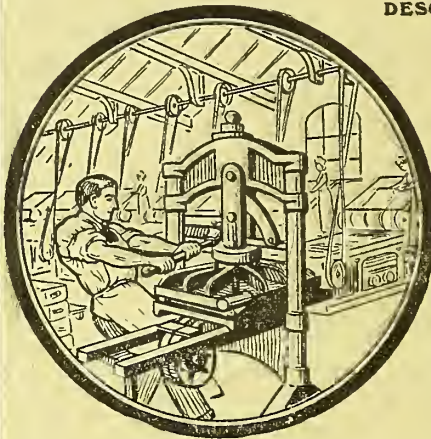
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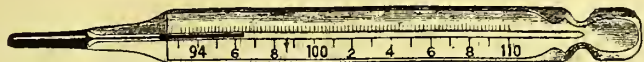
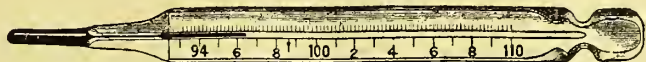
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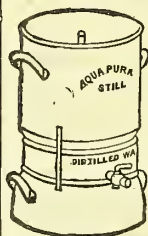
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PUTS A WAVE IN EVERY HAIR.

ONLY SHOW TO SELL
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4/- PER DOZ. P.A.T.A. PROFIT 33 $\frac{1}{3}$ % ADVTD. 6^d. PER PKT.

SEND
IN YOUR
COUPON
TODAY

OUR OFFER

is made to let you have a stock in the shortest space of time, so that not a sale shall be missed nor the goodwill of a customer lost, & consists of **6 DOZ. QUIN-QUENNA POST FREE** per return, along with a pretty blue and brown showcard. The 6 doz. is put up in a double illustrated lidded carton, suitable for both counter or window. And we suggest your sending for it

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Head Office: 42 CANNON STREET, LONDON, E.C. 4.

Telegrams: "Chemicus, Cannon, London." Telephone 3617 Central (three lines).

Branches: MELBOURNE AND SYDNEY, AUST.

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"C. & D. DIARY," 1919.—Our annual *Diary*, which will be in the same form as the last issue, has, in consequence of war conditions, to go to press somewhat early, and the work of revision is already in hand. We shall reserve space for the registration of formulas for "known, admitted, and approved" remedies. Our *Diary* was the first book of the kind which the Revenue authorities accepted as an approved book of reference. The space reserved in the 1919 *Diary* for such formulas will be limited, so that true copies of them, with doses or other directions for use, should be sent to the Editor C. & D., 42 Cannon Street, London, E.C., as promptly as possible.

PROFESSOR HENRY GEORGE PLIMMER, F.R.S., 32 Queen's Road, St. John's Wood, London, W., who died on June 22, left estate valued at 9,364l. 0s. 3d.

MR. ALBERT EDWARD HOLDEN, Hyde Park House, London, W., who died on October 20, aged fifty-seven, left estate valued at 1,221l. 12s. gross, with net personality 638l. 11s. 1d.

MR. ANDREW GADDES, chemist and druggist, has taken over the business at Silksworth formerly carried on by the late Mr. S. Bowman.

PRINCE & Co., chemists, Cheap Street, Bath, have purchased and transferred to their own premises the business of Bright & Pryke, chemists, Southgate Street.

UNITED ARTS RIFLES "B" COMPANY (PHARMACISTS).—On August 25, at 9.45 A.M., Battalion parade at Baker Street Station (Metropolitan Railway) for Field work at Wembley. Return about 4.30 P.M. Dress: Marching order, great coat in pack. Entrenching-tools should not be carried. August 28 and 29, platoon parades at headquarters at 3 P.M.

European War News.

Import and Export Notices.

HOLLAND AND DENMARK.—The Director of the British War Trade Department announces that, after consultation with the United States and Allied Governments, it has been decided to resume the issue of licences for the export to Denmark and Holland of the goods specified below. Exporters and others who have already sent in applications for licences, and who have been informed that consideration of their applications has been deferred pending a further announcement, are requested to renew the attention of the War Trade Department to their applications, and to quote in each case the reference number which has already been furnished: Aconite, argentamine, arsenious acid, ferrum redactum, ichthyol, barium sulphate, beta-naphthol, butyl-chloralhydrate, soda cacodylate, chromic acid, diethylbarbituric acid, phenacetin, sodium arsenate, sodium nitroprusside, sodium salicylate, veronal sodium, and table-salt.

Distribution of Fats.

Under the new Oils and Fats Distribution Scheme which comes into force on September 15, all Class A manufacturers (*i.e.*, large manufacturers who sell the whole or the greater part of their output wholesale over a considerable area) have been notified by the Ministry of Food that they will receive their supplies of butter, lard, and oil and fat compound on permits issued by the Director of Edible Fats Distribution. Supplies of butter and lard will then be provided by the suppliers nominated by each manufacturer. Oil and fat compound will be delivered from the factory to the order of the Ministry of Food. If any large wholesale manufacturer has not been communicated with by the Ministry, and considers that he comes within the scope of category "Class A," he should notify the Director of Edible Fats Distribution, New County Hall, Westminster Bridge Road, London, S.E. 1, without delay, and quote reference EFD/46. All manufacturers who have not received a notification from the Ministry in these terms will, generally speaking, be dealt with as Class B manufacturers (*i.e.*, smaller manufacturers who sell their product by retail). Such manufacturers should in every case, if they have not already done so, apply immediately to their local food offices for a copy of Form N.Fats 2, on which to make application for supplies of fats for the period commencing September 15. These forms should be returned, when duly completed, to local food offices without delay.

Personalia.

PRIVATE GEORGE WYCHERLEY is reported to be a prisoner of war. Prior to joining the Army he was an assistant with Mr. S. N. Pickard, chemist and druggist, Ossett.

PRIVATE CHARLES LESLIE POPPLETON, West Yorkshire Regiment, previously reported missing (*C. & D.*, July 13, p. 33), is now ascertained to be a prisoner of war. Prior to enlistment he was with Taylors' Drug Co., Ltd., Leeds.

LIEUTENANT HAROLD ARNFELD, Cheshire Regiment, was severely wounded on service in France on August 7. Lieutenant Arnfeld passed the Qualifying examination, after studying at the "Square," in 1908, and the Major in the following year. He is a Fellow of the Chemical Society. Prior to receiving his commission in November 1914 he was actively engaged in connection with the output of J. C. Arnfield & Sons, Ltd., manufacturing chemists, Stockport, of which company he is a co-director with his father and his elder brother. He has not yet arrived in England, but it is understood that he is progressing favourably.

LIEUTENANT J. MATRICE MENZIES, who was decorated with the Military Cross early this year, has recently been awarded the Croix de Guerre. For several years prior to the war Lieutenant Menzies was the London representative of the Paris perfumery firm of Pinaud. He was at the Lyons Exhibition when war broke out, and at once joined his regiment in the French army. He was subsequently given a commission, and has been on active service in Serbia and at Salonika. A French army order dated July 12 recites that in the course of a night attack he did not hesitate to place himself in a particularly dangerous observation-post, and that, although wounded, he stayed there during the whole operation. He has now recovered from his wounds, and has rejoined his regiment. A portrait of Lieutenant Menzies, whose home is at Kew, appeared in the *C. & D.*, II., 1914, p. 389.

CAPTAIN ROBERT ALEXANDER HEPPLE, R.A.M.C. (Special Reserve), has been awarded the Military Cross for conspicuous gallantry and devotion to duty. The advanced dressing station of which he was in charge was struck by several shells, killing and wounding the majority of the

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occupants. Captain Hepple refused to leave until all the wounded had been rescued from the *débris*, although the vicinity was continually being shelled by the enemy. Captain Hepple served his apprenticeship in pharmacy with Mr. H. Lancashire, Ph.C., Ballymena, and afterwards joined the staff of Mr. W. F. Wells, Ph.C., Upper Baggot Street, Dublin. While with Mr. Wells, he passed the Assistants' examination of the Pharmaceutical Society of Ireland (in 1908), subsequently leaving to take up medical studies at Edinburgh University, where he graduated M.B., Ch.B., in 1913. He went out to France with the "Old Contemptibles," and has been there ever since. Captain Hepple is the younger son of a Ballymena resident whose other son was severely wounded in action over a year ago and is now in a convalescent home.

Miscellaneous.

BELGIAN DOCTORS' AND PHARMACISTS' RELIEF FUND.—Burloughs Wellcome & Co. have subscribed a further sum of 100*l*.

TRADING FIRMS IN CHINA.—The Nia Tang Dispensary (new style for Jin Ann Dispensary), Swatow, has been added to the list of persons to whom articles to be exported to China may be consigned. The Jin Ann Dispensary, Swatow, has been removed from the list.

TO BE WOUND UP.—An Order has been made by the Board of Trade requiring the undermentioned business to be wound up: Widenmann, Broicher & Co., Ltd., 1 Fenchurch Avenue, London, E.C. 3, general importers and exporters. Controller: F. D. Leake, 25 Abchurch Lane, London, E.C. 4.

PRISMATIC COMPASSES.—The Minister of Munitions gives notice that all permits for dealing in prismatic compasses or the like of an outer diameter of 2½ in. or less, by means of which an azimuth angle can be read off simultaneously with the sighting of an object, have been withdrawn, and that henceforward any purchase or sale of any such compass is illegal, unless specially permitted by him.

OPTICIANS IN CERTIFIED OCCUPATION.—Mr. J. Harcombe Cuff, Secretary of the Institute of Ophthalmic Opticians, has been informed by the Minister of National Service that it has been decided to include sight-testing opticians in the new List of Certified Occupations, which is now being prepared, and that instructions have been issued that, pending the publication of the new list, a man of the new military age is not to be called up even for medical examination, provided that he was engaged in the occupation named below (not necessarily with the same employer) on or before August 15, 1915.

OPTICIAN (Sight-testing).

Men who have passed the examination of the Spectacle-makers' Company or of the British Optical Association, and have been regularly and habitually employed or engaged as sight-testing opticians for more than ten years.

LOOFAHS ON ACTIVE SERVICE.—Mr. John L. Smith, chemist and druggist (managing director of John L. Smith, Ltd., wholesale and retail chemists, Regent Road, Salford), has received a letter from Private F. Story, an assistant now on active service in East Africa, containing the following *actualité*: "There was nothing of much interest about Kisiwani—a waterless and fearfully hot spot—except perhaps the large number of loofah trees with their strange 'fruit,' looking for all the world as if someone had tied a lot of vegetable marrows to the trees for a joke."

Military Tribunals' Decisions.

SINCE OUR LAST REPORT the following decisions have been notified:

BARNES.—Mr. P. N. Turner, chemist and druggist, was allowed two months.

BOSTON.—Mr. S. Marshall, assistant with Grimble & Kent, chemists, was exempted to December 31.

CHISWICK.—The hearing of the claims for exemption of Messrs. T. Profit, chemist and druggist, and E. Shaw, a director of Morton's, Ltd., chemists, was adjourned in order that the local N.S.R. might confer with the county N.S.R.

MEDICAL EXAMINATIONS IN MIDDLESEX.—At a recent sitting of the Middlesex Appeal Tribunal, it was stated that all the chemists in the county were being medically examined with a view of seeing how many could be spared in the higher grades. The Chairman remarked that a large number of women are qualified, but that the chemists will not take them on. Addressing the N.S.R., he added: "If you bear that in mind you may get a large number of the younger chemists."

English and Welsh News.

The Editor would be obliged if subscribers would send him marked copies of newspapers containing items of interest for insertion in this or other news sections of the "C. & D."

Birmingham.

The luxury-taxation proposals are not in much favour with local traders.

A one-man business Association is being formed here. It will be affiliated to the National Federation of these Associations.

It is stated that applications from anyone requiring rations of coal, coke, and gas for business purposes must be made before August 31.

"Is your baby safer than the soldier in France?" asks current proprietary-food advertisement. The cult of baby-welfare is a road to popularity just now.

The teaching of botany in elementary schools is causing trouble with allotment-holders, who find that their patches have to suffer at the hands of youngsters in quest of specimens.

The local case of a child born with its heart almost literally on its sleeve has, of course, proved of the greatest interest to the medical profession, among whom it is believed that only three or four such cases have been recorded in the last 500 years.

A fine specimen of a bell-metal mortar is on view in the window of P. Harris & Co.'s pharmacy in Edmund Street. It is complete with block, lid, and leather strap, and is inscribed "Arthur Goldwell of Oundle, 29th of May, 1668." It is the property of Mr. H. S. Shorthouse, F.C.S., who has a fine collection of mortars. Its value is said to be 200*l*.; but it is not at present on sale.

Liverpool.

"Flu" remedies and preventatives form window and counter displays here.

Mr. H. Humphreys Jones has returned to the Liverpool School of Pharmacy.—Mr. E. G. Hodges is back from his month in South Wales and visit to Bristol.—Mr. Harold Lomax has spent a short vacation at Morecambe Bay.

Some compensation to local pharmacists for the absence of the United States and Colonial tourists is found at present in the record rush for the Isle of Man, North Wales, and Wirral. New Brighton, Hoylake, and West Kirby are booming as the holiday-resorts of factory workers with a flush of money to spend.

Anxiety was aroused this week by a report that Dr. Symes had met with a mishap. Inquiry, however, elicited that, while it was true he had sustained a rather alarming fall owing to the failure of a ladder on which he was standing at his Hardman Street pharmacy, and that several bottles were broken, the veteran chemist suffered no more serious injury than a slight shock.

In common with the wholesale trade, the local retailers are solidly at the back of the P.A.T.A. in reference to the embroachment dispute. It is pointed out that the two wholesale firms singled out for preferential treatment are not represented by the leading honorary officers of the current year, but that their names have been taken from last year's P.A.T.A. notepaper, still in use owing to war-economy.

Sheffield.

In the East End 2s. 6*d*. per 100 is being charged for saccharin tablets of unstated strength.

Sergeant Preston, who is a dispenser at a military hospital, has been promoted staff-sergeant. He is a son of Mr. Job Preston.

There has been a tendency on the part of chemists of late to let the copper-sulphate and Burgundy-mixture trade drift into the drysalts' and horticulturists' hands. Mr. Job Preston, however, is pushing goods of this class.

Through the extraordinary number of National Insurance scripts for last month, and the shortage of staff, the cheques are likely to be two or three days late. Several chemists are charging poison-bottles to the Insurance Committee. Such bottles should be supplied on the deposit system to the patients, and will be deducted if added to chemists' accounts.

A copy of the pamphlet by the Editor of the *C. & D.* on the statutory restrictions of the sale of poisons has been forwarded by the Pharmaceutical Committee to each panel chemist, to every member of the Insurance Committee, and to several citizens holding public positions. It is hoped that their education, and ultimately that of the public, in these matters will thus be promoted.

Miscellaneous.

POISONINGS.—At an inquest at Chertsey on August 15, on the body of Frank Lloyd Parton, a law student, it was stated that he purchased potassium cyanide on July 27, saying that it was for destroying wasps. Medical evidence showed that death was due to cyanide poisoning: an "Unsound mind" verdict was returned.—Eliza M. Holley, a cook employed in Bayswater, committed suicide with spirit of salt.

IN THE COURTS.—At Maidstone County Court on August 9, Mr. Herbert Payne, Ph.C., Week Street, claimed 18s. against Sergeant Albert Wickens, in civil life a tailor, for a pair of spectacles supplied, which, he said, were exactly in accordance with those that defendant pronounced suitable when plaintiff tested his sight. No complaint was made for two months. Defendant said that the spectacles were useless to him. Judgment was given for defendant.

DEATH FROM TETANUS.—At Hackney, London, E., on August 17, an inquest was held upon Samuel Donnor, who died at the German Hospital, where he was admitted as an influenza patient. Dr. Weber, the senior visiting physician, said he diagnosed that the patient was suffering from typhoid fever and had severe hæmorrhage from the bowels. To control the hæmorrhage injection of gelatin solution was made in the thigh, and four or five days afterwards tetanus developed which caused death. The jury returned a verdict of misadventure, and afterwards, in reply to a question, Mr. W. A. H. Naylor, a director of The British Drug Houses, Ltd., which supplied the gelatin solution, stated that the solution was sterilised in the proper manner.

CHEMICAL INDUSTRY COUNCIL.—The first meeting of the National Industrial Council for the Chemical Industry, which consists of representatives of the Chemical Employers' Federation and of a number of trade unions representing workers in the chemical trade, was held on August 16 at the Caxton Hall, Westminster. The following appointments were made: *President*, Mr. Roscoe Brunner (chairman of Brunner, Mond & Co.); *Vice-President*, Mr. Ernest Bevin (Dock, Wharf, and Riverside Workers' Union); *Secretary*, Mr. Lloyd Roberts (Winnington, Cheshire); *Treasurer*, Mr. J. O'Grady, M.P. A provisional Executive Committee was appointed to report on the constitution of permanent Committees for the next meeting. A letter was read from Dr. Addison, suggesting that technical and commercial questions in the chemical-trade should be dealt with by an Advisory Committee of the Association of British Chemical Manufacturers, on which should be co-opted two Labour leaders and two members of the Chemical Employers' Federation. After a discussion the meeting unanimously accepted Dr. Addison's suggestion, with an amendment, that the four co-opted members of the special Committee should be appointed by the National Industrial Council, and these were appointed as follows: Messrs. Roscoe Brunner and T. W. Stuart (for the employers), and Messrs. W. T. Kelly and Fleming Eccles (for the workpeople).

Irish News.**Brevities.**

The Wexford Guardians have appointed Mr. Thorpe analyst at 18*l.* per annum.

Mr. S. McLoughlin, Ph.C., 149 Oldpark Road, is moving to more extensive premises at 157 Oldpark Road, Belfast.

Mr. S. Acheson, M.B., B.Ch., son of Dr. S. E. A. Acheson, chemist and druggist, Cromac Street, Belfast, has received a commission as surgeon in the Royal Navy.

Sir Charles Cameron has resigned his position as analyst to the Sligo Guardians, as they did not favourably consider his application for an increase of salary. It was decided to write Sir Charles for his terms.

The staff of Mr. P. J. Fielding, Ph.C., 66 Patrick Street, Cork, has decided to join the Irish Chemists' Assistants' Association. This means that the assistants at all the chemists' shops in Cork are now organised.

The Chief Secretary for Ireland stated in the House of Commons that the Department of Agriculture and the Congested Districts Board have not considered it necessary to take any special steps to increase the output of kelp in Ireland during the present season, the increase in price being a sufficient inducement to kelp-burners to produce as much as possible. There is at present a keen demand for kelp by flax-growers and manure-manufacturers owing to shortage of potash.

Clarke & Co. have written the Sligo Guardians, in reply to a complaint of delay in delivering certain surgical appliances requisitioned. They state that the requisition

reached them on June 4, and the goods were despatched on June 11, and they failed to understand the reason for complaint of delay. The last order received for the year 1917-18 was in error sent to Newry Workhouse, so that there was some delay in that instance: since then an endeavour has been made to give specially quick deliveries, but this is sometimes very difficult to do owing to the inability of the firm to obtain supplies on account of the Government getting the preference in every case.

The Sale of Strychnine.

Mr. Roche, J.P., Coroner, resumed on August 13, at Wexford, the inquest on Mr. Frederick S. Budden, managing engineer at Ferrybank, Wexford, whose death was due to strychnine-poisoning. Mr. Eustacio H. Webb, Ph.C., Hadden's Hall, Wexford, examined, stated that Mr. Budden, whom he knew intimately, came to his shop and asked for some poison to kill a dog. He asked whether strychnine would be the best. Witness said it would be the quickest, but suggested that chloroform should be employed, as being the more humane. Mr. Budden said that would be too troublesome, as the animal was a large and strong one. Witness thereupon supplied strychnine, and got Mr. Budden to sign the poison-register. He supplied 15 gr. of strychnine in a capsule, which in turn was placed in a box labelled "Strychnine—Poison." Head Constable McGrath, who represented the police, stated that, knowing Mr. Budden as Mr. Webb did, he would not have hesitated to give him poison. He was legally entitled to get it. The jury found that death resulted from asphyxia, due to strychnine-poisoning, that the strychnine was self-administered, and that they had no evidence to show whether it was taken with suicidal intent while temporarily insane, or through misadventure.

Scottish News.**Edinburgh.**

A chemist on holiday recently came upon a little village pharmacy with a fair display of bottles of "Pure glycerin."

A local chemist is refusing to sell more than a twopenny box of any of the popular ointments to each customer.

A local paper, reporting the case of an engineer fined for drunkenness, quaintly states that he was found putting a bottle "under a tap of pure alcohol, which was 99 per cent. over proof."

A chemist who had "hoarded" over 100 packets of controlled saccharin tablets released these the other day, and had a record. For days afterwards people from other parts of the town travelled to his shop—in hope.

When the shop is crowded, and the friend of the last corner murmurs in a stage whisper, "Hurry up an' get served," what do the other customers think? The hard-pressed pharmacist has very definite thoughts of his own.

Glasgow.

The third of the bowling-matches arranged by the Glasgow Pharmacy Athletic Club took place on the Queen's Park Club's green on August 13. Mr. H. P. Arthur's rink won the prizes. The following were the skips and scores:

Mr. G. McDonald	...	...	11	Mr. C. B. Lee	...	...	22
Mr. J. T. Simpson	...	...	11	Mr. Moir	...	...	15
Mr. H. G. Gray	...	...	12	Mr. W. L. Currie	...	...	21
Mr. W. D. Paterson	...	...	3	Mr. H. P. Arthur	...	...	32

The British Industries Fair was opened at Kelvin Hall on August 19 by Sir Arthur Steel-Maitland. Among the exhibitors of special interest to pharmacists are Stafford Allen & Sons, Ltd. (essential oils, etc.); British Dyes, Ltd. (dyestuffs and intermediates); Brotherton & Co., Ltd. (dyes, tar products, and ammonia products); Milton Manufacturing Co., Ltd. (Milton); Genatosen, Ltd. (Sanatogen & Formamint); and Goodall, Backhouse & Co., who are displaying their well-known proprietaries.

SPIRIT FROM SPHAGNUM AND LICHENS.—A Swedish syndicate has applied to the Government for permission to erect a distillery for the manufacture of spirit for technical purposes from sphagnum and lichens.

THE HEYDEN CHEMICAL-WORKS of Garfield, New Jersey, the second largest corporation of its kind in the United States, has been taken over as an enemy concern by the Alien Property Custodian. The business was owned by the Chemische Fabrik von Heyden, of Radebeul, Germany, and the turnover last year amounted to four million dollars. An attempt had been made to "camouflage" the ownership of the concern.

Legal Report.

Nicholai Products.—In the Vacation Court on August 14 the hearing was continued before Mr. Justice Roche of the case of *Nicholai v. Howitt* upon the motion by the plaintiff for an injunction to restrain the defendant, Mr. Arthur Howitt, from advertising himself as or holding himself out as the proprietor of certain products and processes connected with perfumery and other similar articles known by the name of "Nicholai" products (*C. & D.*, August 10, p. 38). Counsel for the plaintiff stated that since the case was before his Lordship the previous week both sides had filed further evidence, and the result was that there was a considerable conflict of fact. He (counsel) contended, however, that there was in the circumstances an extraordinary probability that the plaintiff's story was correct. Defendant's story was that the plaintiff had deliberately set himself out to smash the company, and that therefore the proviso which entitled him to receive back the formulas never took effect. His Lordship would see from the evidence that the plaintiff was the holder of the whole of the ordinary shares in the company, and in these circumstances it was almost incredible that the plaintiff should have done what the defendant accused him of doing. Mr. Bridges, on behalf of the defendant, read an affidavit to the effect that the defendant had never offered for sale any goods as "Nicholai" products with the exception of those taken over by him when he bought the company's stock. In the result, his Lordship having stated that without deciding the point definitely the agreement between the plaintiff and the company did *prima facie* give the right in the formulas to the plaintiff, Mr. Bridges agreed on behalf of the defendant to give an undertaking practically in the terms of the notice of motion until the trial of the action, the costs of the application to be costs in the action.

Deeds of Arrangement.

Casby, Harold Christopher, 68 Cape Hill, Smethwick, and 5 Grosvenor Road, Harborne, Drysalter.—Trustee, A. Collins, 28 Baldwin Street, Bristol, accountant. Dated, August 7; filed, August 13. Liabilities unsecured, 308*l.*; estimated net assets, 211*l.* Among the creditors are Hodgkinson, Prestons & King, 23*l.*; D. & W. Gibbs, Ltd., 20*l.*; Midland Vinegar Co., Ltd., 9*l.*; Blyton, Astley & Co., 13*l.*; General Kaputine Syndicate, Ltd., 4*l.*; and Millbay Soap and Candle Co., Ltd., Plymouth, 6*l.*

Douthwaite, Henry L., Chepstow Corner, Westbourne Grove, London, W., Dispensing Chemist.—Trustee, J. R. Stephens, 2 Gresham Buildings, Basinghall Street, accountant. Dated, August 9; filed, August 15. Liabilities unsecured, 1,093*l.*; estimated net assets, 796*l.* Among the creditors are Apollinaris Co., Ltd., 7*l.*; Butler & Crispe, 60*l.*; The British Drug Houses, Ltd., 30*l.*; H. Brunley & Co., Ltd., 10*l.*; T. F. Bristow & Co., Ltd., 9*l.*; Burroughs Wellcome & Co., 10*l.*; Crown Perfumery Co., 9*l.*; Duncan, Flochart & Co., 11*l.*; R. Hovenden & Sons, Ltd., 9*l.*; T. Kerfoot & Co., 15*l.*; H. & T. Kirby & Co., Ltd., 7*l.*; S. Maw, Son & Sons, Ltd., 6*l.*; Parke, Davis & Co., 6*l.*; R. J. Reuter, 4*l.*; J. Timpson & Co., Ltd., 6*l.*; W. Toogood, Ltd., 4*l.*; Virol, Ltd., 6*l.*; Warrick Bros., Ltd., 5*l.*; A. Wander, Ltd., 5*l.*; Barnett Perfumery, Ltd., 9*l.*; and Melanoca Co., 13*l.*

WOMEN BACTERIOLOGISTS WANTED.—The American Surgeon-General's Office has issued a call for 100 women bacteriologists to relieve men in the different National Army camps and cantonments for service with "hospital units abroad." The pay is \$1,200 a year, and the Government pays transportation, or \$720 a year with transportation and maintenance.

THE BIRMINGHAM DISPENSARY, LTD.—A meeting of the creditors was held at the offices of Edwin Jaques & Sons, 102 Colmore Row, Birmingham, on August 16, when the statement of affairs submitted showed liabilities amounting to 250*l.* and assets valued at 121*l.* It was reported that the company was formed about four years ago, acquiring the business formerly carried on by T. B. Perkins, Ltd. The company had a capital of 500*l.*, of which 250*l.* was subscribed. The weekly turnover has averaged about 25*l.*, but within the last six months the trade has gradually fallen off, and, as further capital could not be obtained, a resolution was accordingly passed that the company be wound up, and Mr. Geo. W. Radley, of 36 Cannon Street, Birmingham, was appointed liquidator.

Progress in Pharmaceutical Products.

By R. R. Bennett, B.Sc., F.I.C.

Abstract of a Lecture delivered at the British Scientific Products Exhibition, August 15, 1918.

THE subject is a very wide one, for in the group of medicines and pharmaceutical products we should rightly include not only such essentials as strychnine, morphine, bismuth salts, iodides, and mercurials, but also the thousand-and-one chemical and pharmaceutical preparations which are used for the treatment of disease, the cure of the sick, the care of the wounded, and for maintaining the general health of the civil and military population.

VEGETABLE DRUGS.

It is clear that the cultivation of drug-yielding plants should be prosecuted in this country to as great an extent as possible, and, further, that the resources of our Colonies must be developed to an increasing extent. I have on the table before us a few typical specimens of British-grown drugs. *Aconite-root*.—This sample has been grown in Suffolk, and contains a larger percentage of aconitine than the root formerly obtained from Germany. *Belladonna root and leaves*.—Large quantities were previously obtained from Central Europe, but English growers are now providing nearly enough for our requirements. Both root and leaves are produced in Bedfordshire, Huntingdonshire, and other English counties. The specimen of leaves on the table comes from Kent. *Hyoscyamus and stramonium*.—The specimen of *hyoscyamus* before us has been cultivated in Suffolk; the *stramonium* has come from Bedfordshire. Egyptian henbane (*Hyoscyamus muticus*) has reached this country in considerable quantities, and has been used for the manufacture of atropine. *Digitalis*.—Much of the *digitalis* used in this country before the war was collected in the Harz Mountains and in the Thuringian Forest, but English growers are now able to meet all our requirements. *Colchicum corm and seeds*.—Formerly imported from Central Europe, but English collectors now make us independent of that source. *Chamomiles*.—Now cultivated in Huntingdonshire. *Rhubarb-root*.—This sample was grown in Suffolk. *Taraxacum*.—Now collected in Bedfordshire, Surrey, and other counties. *Valerian*.—Now cultivated in Wiltshire, and we are independent of foreign supplies. The total number of vegetable drugs now unobtainable owing to the closing of enemy countries is very small.

ELEMENTARY CHEMICAL PRODUCTS.

Much has been done, and much more can perhaps be done, by utilising sources of supply within the Empire which have hitherto remained undiscovered and undeveloped. Bromine, iodine, bismuth, and mercury are four elements of prime importance in medicine, and in respect of these Government intervention has been necessary in order to safeguard the receipt of adequate supplies from neutral countries. Magnesium sulphate was, before the war, imported in large quantities from Germany, where it is obtained as a by-product. It is now produced in sufficient amount in this country, and there are within the Empire very large deposits of the raw material for its manufacture. In view of the wide importance of potassium salts, steps have already been taken to remove the shortage of potash in this country. Potash can be recovered in large quantities and at low cost from blast-furnace dust, the manufacture of cement, and the washing of raw wool.

FINE CHEMICALS.

Three of the most important of the vegetable alkaloids—quinine, morphine, and strychnine—and the two most important anaesthetics—ether and chloroform—have all along been British products. In respect of these and a host of others which could be named this country has not only been self-supporting, but in many of them has done a very considerable export business. In 1914 the manufacture of salicylates was practically a German monopoly, but in 1918 this manufacture is an established British industry. Salicylic acid and its derivatives—sodium salicylate, methyl salicylate, salol, aspirin and such salts as calcium acetyl-salicylate—are all produced here on a commercial scale sufficiently large for present and estimated future requirements. Among other medicinal synthetic chemicals successfully manufactured during the war are benzoic acid and the benzoates, acetanilide, phenacetin, hexamine, and saccharin. So far, whenever a particular substance has been required for a particular purpose, British chemical science plus British chemical industry has not failed to produce it in requisite amount and of requisite purity within a reasonable time. Kharsivan, neo-kharsivan, arsenobillon, neo-arsenobillon, intramine, colloidal iodine, colloidal mercury, colloidal manganese, bismuth subgallate, and bismuth tri-

bromphenol, all of which are of British manufacture, are being used in the treatment of venereal diseases. Prior to the war, chemicals of the high degree of purity required for analytical and research purposes were to a large extent imported from a few German manufacturers. In 1915 a pamphlet was prepared by a Committee appointed by the Institute of Chemistry and the Society of Public Analysts giving specifications of eighty-eight reagents (distinguished by the letters "A.R."), and the manufacture of these has been successfully undertaken by several British firms.

I have here a series of dyes used as microscopic reagents. These are made by a British firm, and are guaranteed free from diluents. They are from two to four times the strength of those formerly supplied by German manufacturers, since the latter were not composed solely of dyestuff, but consisted of dyestuff mixed with a high percentage of an inorganic or organic diluent, usually either sodium chloride, sodium sulphate, or dextrine. Many of the staining solutions used as microscopic reagents are directed to be made by preparing saturated solutions of certain dyes in absolute alcohol, and it is stated in text-books that a large excess of dye is necessary in order to obtain the maximum colour-effect. This direction to take an excess arose from the fact that the dyestuffs supplied by German manufacturers contained a varying proportion of insoluble diluent which it was necessary to remove by filtration. This wasteful method can be modified, and exact quantities can be taken now that the dyestuff in a pure state is available. Specimens of several pure dyestuffs are before us. To give an idea of the strength of these substances, I may note that 1 gr. of fluorescein will impart a fluorescent tint to 1,000 gals. of water. It must be remembered that manufacturers have had to meet war demands to which all after-the-war questions have to be made subservient, and, further, that they have had to work under war conditions, the worst possible for creating new industries.

Association Affairs.

Cambridge.—A meeting of the East Anglia Federation of Pharmaceutical Associations was held at the Lion Hotel, Cambridge, on August 15, among those present being Mr. J. F. Collin (in the chair), the Secretary (Mr. W. J. Lacey, Norwich), Messrs. A. S. Campkin, Hugo Wolff, and Herbert Skinner (members of the Pharmaceutical Council), John Humphrey (London), S. F. Barker, B. Sidney Campkin, A. H. Course, Mrs. Course, and representatives from Norwich, Ipswich, Bury St. Edmunds, Peterborough, Royston, Uppingham, Cottenham, etc. The position of chemists in regard to military service was explained by Alderman A. S. Campkin, who is a member of the Advisory Committee appointed to confer with the National Service Commissioners, and the following resolution was unanimously carried: "That this meeting of the E.A.F. urge upon the Committee appointed to consider the question of pharmacists and national service the supreme importance of pharmacists who are called to the Colours being allowed, in the interests of sick soldiers, to pursue their own calling—viz., dispensing of medicines." The recent action of the proprietors of Elliman's Embrocation was discussed, and it was unanimously decided "That this meeting of East Anglian pharmacists strongly supports the action of those wholesalers who have decided to stand by Messrs. May, Roberts and Messrs. Barclay, who have been refused supplies by Elliman, Sons & Co., and pledges itself to adopt whatever policy the P.A.T.A. advises." Mr. Hugo Wolff then gave an address on *Federation in Pharmacy*, in the course of which he made some thoughtful proposals as to how federation may be properly carried out. After outlining the proposals of the Whitley Report, Mr. Wolff said that the need for federation was clearly laid down in that Report. Chemists' assistants had already formed a Union in order that they might confer with the Government in matters affecting them, whereas the employers had no organisation that represented the whole trade. The old scheme had not been a success, and the Pharmaceutical Society had flatly refused to consider the new one, sending it out to the country instead. He submitted that for that Society to take such a step there must be something wrong with the scheme. The L.A.E. was not constituted on a basis that would make it representative of every section of the country—it should be set up on a territorial basis. Further, this principle should apply to the Pharmaceutical Council. So he contended that both the old and new schemes were unsuitable. Proceeding to put forward his own suggestions, Mr. Wolff said that any scheme that was to be permanent must ensure (1) that every pharmacist should be represented; (2) that every district, however small and

however remote, should have a chance to have its views discussed; (3) that every county or county borough should be represented wherever there was a district conference; (4) that every Federation should have a representative on the Central Executive; (5) that the Central Executive should be a real live body, capable of advising and not given to dictating too much. The scheme, he added, must be self-supporting. The Pharmaceutical Committees were the keystone of the industry, and the proper course would be to federate the Committees themselves, instead of their being Sub-Committees of Associations. Mr. Wolff confessed that he had failed to work the Society into the scheme, but if it attended to its statutory duties it would find its hands full. The only loophole was to give the Society representation on the Central Executive. The scheme was discussed by Messrs. Robinson, Skinner, Humphrey, and Evans, and it was unanimously resolved "That this East Anglia Federation is of opinion that their time has come for a federation scheme of pharmacists, to be formed on a territorial basis, the first unit being the local Association (which of necessity includes the interests represented by the local Pharmaceutical Committee), and the next unit being the federal areas, similar to the pricing areas, finally arriving at the Central Federation, with its Executive elected on purely territorial lines." The meeting concluded with a hearty vote of thanks to Messrs. Wolff, Skinner, and Humphrey for coming from London for the occasion, the Chairman remarking that Mr. Wolff had given them much food for thought.

Eastbourne.—A meeting of the Eastbourne Pharmacists' Association was held at 2a Terminus Buildings on August 14. Mr. Walter Price (Vice-President) in the chair. The list of chemists as advised by the Pharmaceutical Committee Executive and the Insurance Committee Executive was considered and gave satisfaction. The position in regard to Elliman's Embrocation was discussed, and it was agreed not to stock Elliman's goods until the firm came into line, in accordance with the letter sent from the P.A.T.A. The Secretary was requested to write to Messrs. Elliman, informing them, and also to the wholesale dealers promising cordial support. The discussion of the report on pharmaceutical organisation was opened by Mr. Arthur Mills, but time did not allow of a definite decision, and the Secretary was requested to write to Mr. Hugo Wolff to see if he would attend the next meeting.

Eastern v. Northern (London) Bowling-match.—A keenly contested match played at Poplar, on August 15, by the Eastern against the Northern team, ended in the victory of the Eastern by 11 points. The following are the results:

Eastern.	Northern.
Abelson	Pennett
Styles	Rawlins
Keith (skip)—25	Bowls (skip)—19
Goode	McCuskie
Lawrence	Honiat
Wilson (skip)—22	Sinclair (skip)—17

In the course of a vivacious narrative, one of the players writes: "As a rule, good-natured badinage passes freely during the game between these two teams; but on this occasion scarcely a word passed. . . . The skips on both sides put in some very fine shots, saving the situation several times. . . . Rumour hath it that the Corporal, one of the Eastern skips, was at least an inch taller when on Volunteer parade the following Sunday, though I cannot vouch for the truth of the statement that he has offered to give lessons in the game at a price. . . . It is not true that the Western team, which wins the championship by virtue of the defeat of the Northern, is presenting medals to the Eastern."

London (S.E.).—A sub-district meeting of the South-East London Chemists' Association was held at the residence of Mr. Winzer, Nelson Street, Greenwich, on August 13, Mr. C. Hapgood in the chair. It was unanimously agreed not to join the local traders' Association that is being formed to deal with one-man businesses affected by the calling-up under the new Military Service Act. It was also unanimously resolved to discontinue the sale of Messrs. Elliman's preparations until such time as the company agree to protect their goods at a profit of not less than 20 per cent. on turnover.

Ulster Drug-trade Association.—At a Committee-meeting of the Association on August 14 it was decided to recommend "that all members be requested not to renew their stocks of Elliman's Embrocation, unless bound to do so by existing contracts, until the differences between the makers and the wholesale and retail trades are satisfactorily adjusted."

Proprietary Articles Trade Association.

A MEETING of the Executive Committee was held in London on August 15, when the following resolution was passed:

"That copies of correspondence which has passed between Elliman & Sons, Ltd., and the P.A.T.A. and May, Roberts & Co., Ltd., be sent to all local Pharmaceutical Associations, and that attention be drawn to the following facts:

(a) That the firm have victimised Messrs. May, Roberts and Messrs. Barclay by refusing to execute their orders, giving as their reason that the names of these two firms appear as officers of the Association upon the notepaper upon which the request for better profits was conveyed by the Association to Messrs. Elliman.

(b) That other members of the Wholesale Section (a list of which is submitted) have declined to be put in a preferential position to that occupied by their two colleagues, and that they will therefore decline to deal in Elliman's Embrocation until Barclay & Sons, Ltd., and May, Roberts & Co., Ltd., are supplied by Messrs. Elliman upon the same terms and conditions as apply to other wholesale houses.

The Committee suggest that local Pharmaceutical Committees should take the necessary steps in their respective districts to insure that the retailers should defeat the attempt by Messrs. Elliman to penalise the two wholesale members of the P.A.T.A., by declining, subject to existing contracts (if any), to supply Elliman's Embrocation until their fellow-retailers, who have been accustomed to obtain their supplies through Messrs. Barclay and Messrs. May, Roberts, are enabled to obtain them through those channels."

Members of Wholesale Section of P.A.T.A., referred to in resolution, who have agreed to discontinue selling Elliman's Embrocation until Messrs. Elliman resume supply to Messrs. Barclay and May, Roberts:

Ayrton, Saunders & Co., Ltd., 34 Hanover Street, Liverpool.

Barclay & Sons, Ltd., 95 Farringdon Street, E.C.

Bleasdale, Ltd., Colliergate, York.

Burgoyne, Burbidges & Co., Ltd., High Street South, East Ham, E.

Butler & Crispe, 82 Clerkenwell Road, E.C.

Daniel, Richard, & Son, Babington Lane, Derby.

Duncan, Flockhart & Co., 104 South Canongate, Edinburgh, and 145 Farringdon Road, E.C.

Edwards, W., & Son, 157 Queen Victoria Street, E.C.

Evans, Gadd & Co., Ltd., Fore Street, Exeter.

Evans Sons Lescher & Webb, Ltd., 56 Hanover Street, Liverpool, and 60 Bartholomew Close, E.C.

Ferris & Co., Ltd., Bristol.

Glasgow Apothecaries' Co., 32 Virginia Street, Glasgow.

Goodall, Backhouse & Co., White Horse Street, Leeds.

Harker, Stagg & Morgan, Ltd., Devon Wharf, Emmott Street, Mile End, E.

Hatrick, W. R., & Co., 158 Renfield Street, Glasgow.

Hirst, Brooke & Hirst, Ltd., Leeds.

Hovenden & Sons, Ltd., 30 Berners Street, W., and 85 City Road, E.C.

Lofthouse & Saltmer, Ltd., 12 Market Place, Hull.

May, Roberts & Co., Ltd., 9 Clerkenwell Road, E.C.

Newbery, F., & Sons, Ltd., 27 Charterhouse Square, E.C.

Oldfield, Pattinson & Co., New Bridge Street, Manchester.

Raimes & Co., Micklegate, York.

Raimes, Clarke & Co., Ltd., Smith's Place, Leith Walk, Edinburgh.

Sangers, 253 Euston Road, N.W.

Smith, T. & H., Ltd., Blandfield Chemical-works, Wheatfield Road, Edinburgh, and 37 Washington Street, Glasgow.

Southall Bros. & Barclay, Ltd., Lower Priory, Birmingham.

Sutton, W., & Co., 76 Chiswell Street, E.C.

Thompson, John, Ltd., 58 Hanover Street, Liverpool.

Wilkinson & Simpson, 24 Newgate Street, Newcastle-on-Tyne.

Woolley, James, Sons & Co., Ltd., Victoria Bridge, Manchester.

Wyleys, Ltd., Wheatley Street, Coventry.

The following letter has been sent by the P.A.T.A. to all local Associations of chemists in the United Kingdom:

I have been instructed to send you the enclosed copy of a resolution passed by the Executive of this Association. I trust that the action taken by the wholesale members in defence of their two colleagues and of the right of the Association to organise in support of living

profits will be supported by retailers generally. The immediate issue is not whether the profit on Elliman's Embrocation is satisfactory or not, but whether the Association's officers are to be selected by Messrs. Elliman as scapegoats to be punished while the rest of the members, wholesale and retail, for whom they acted, are to be graciously allowed the privilege of continuing to buy Elliman's Embrocation. Whether intended or not, Messrs. Elliman's action constitutes a direct challenge, and submission to such action would clearly endanger the very existence of the Association.

I should be glad if you would take the earliest opportunity of submitting this correspondence to a full meeting of your Association. If any difficulty arises in regard to firms whose establishments in your Association are only branches, I should be glad, on the matter being reported to me, to take it up with the respective firms with a view to the branches being brought into line with the pharmacists in the neighbourhood.

Boots Pure Drug Co., Ltd., authorise me to state that they will decline to sell Elliman's Universal or Royal Embrocation in those districts where their local competitors decline to sell, as advised by the local Chemists' Associations.

Insurance Act Dispensing.

A Record of matters concerning Chemists' interests in the National Health Insurance Acts.

Reports from Local Centres.

ENGLAND.

Kent.—The Insurance Committee met at Maidstone on August 14, Mr. C. Igglesden presiding. It was decided to take the ratio obtained by the re-assessment of dispensing-fees for January last as a basis for the year under Article 5 of the Medical Benefit Regulations, 1916. The Medical Benefit Sub-Committee reported on the failure of doctors to carry out the rules as to late fees and "rep. mist." Mr. J. E. French and Mr. A. E. Hobbs were re-appointed to the Joint Services Sub-Committee for the ensuing year, and Messrs. French, Hobbs, and J. Harcombe Cuff to the Pharmaceutical Service Sub-Committee.

Staffordshire.—At the last meeting of the Insurance Committee, panel practitioners were granted permission to close their surgeries on Thursday evenings on condition that arrangements were made for the treatment of urgent cases, and that one pharmacy remained open for the necessary dispensing. It was reported that the Bilston chemists had changed their closing-hour to 7 p.m. without reference to the Committee, the result being that evening prescriptions were not dispensed till the following morning. The Clerk was instructed to inquire into the matter.

Warwickshire.—At the meeting of the Insurance Committee on July 24, the Clerk reported that, in agreement with the National Service Representative, three qualified dispensers were to be released for military service on efficient substitutes being provided, and six qualified and four unqualified men were available either for substitution or for Army service.

WALES.

Monmouthshire.—At a meeting of the Monmouthshire Insurance Committee at Newport on August 14, it was reported that the Medical Recruiting Sub-Committee had decided that a list of twenty-four chemists who in the opinion of the Sub-Committee and the Pharmaceutical Committee were indispensable to the needs of the population, and who should be treated as being in a certified occupation, be submitted to the National Service Representatives. It was reported that the chemists on the panel numbered sixty-two, as compared with sixty last year. The amount paid to doctors for drugs last year was 1,622l., and to chemists 3,637l. The Committee declined to entertain the claim of Dr. Frost, of Llanhilleth, in respect to drugs and appliances supplied by him to 539 persons who, it was alleged, resided outside the mile-limit of the nearest chemist's business, on the ground that the list showed all were well within the prescribed radius.

ATMOSPHERIC-NITROGEN SYNDICATE.—It is reported that a syndicate has been formed in Holland for extracting nitrogen from the air by a new process. Experiments on a large scale have turned out very successful, so that it will be possible to produce artificial nitrogenous fertilisers much more cheaply than in a potassium-nitrate factory. The capital required for a factory to produce nitrogen from the air is also much smaller. A similar factory is also projected in the Dutch Indies.

Births.

McWALTER.—At 264 North Circular Road, Dublin, on July 15, the wife of Captain J. C. McWalter, R.A.M.C., M.D., Ph.C., of a daughter.

RANKIN.—At 2 Woodland Avenue, Belfast, on July 28, the wife of W. J. Rankin, jun., Ph.C., of a son.

Marriages.

HENNING-McILROY.—At Malone Presbyterian Church, Belfast, on August 5, by the Rev. R. T. Megaw, LL.D., William J. Henning, R.D., Glencarran, Larne, younger son of the late William Henning, Carnew, Dromara, co. Down, to Helene Alexandra, only daughter of Mr. J. McIlroy, Belgrave Avenue, Belfast.

MABEN-HAYWARD.—At Holy Trinity Church, Tunbridge Wells, on August 19, Major H. C. Maben, D.S.O., M.C., youngest son of Mr. Thomas Maben, Ph.C., Herne Hill, London, S.E., to Margaret Lilian, third daughter of the late Mr. and Mrs. Hayward, Folkestone.

MABEN-ROWELL.—At Singapore, on July 3, T. M. Maben, Ph.C., F.C.S., third son of Mr. Thomas Maben, Ph.C., Herne Hill, London, S.E., to Hilda, daughter of Mr. Rowell, Singapore.

ROSS-FORSYTH.—At Ben Vrackie, Barnhill, on August 14, by the Rev. A. W. Ferguson, Second-Lieutenant Donald Ross, R.E., to Annie Scott, only daughter of Mr. John Forsyth, chemist and druggist, High Street, Dundee.

TOHER-PURCELL.—At the Church of the Holy Family, Aughrim Street, Dublin, on July 26, by the Rev. M. Toher, M.A., C.C. (brother of the bridegroom), assisted by the Very Rev. Canon Fegan and Rev. J. Field, Thomas P. Toher, Ph.C., Stephen Street, Sligo, to Margaret (Dixie), third daughter of late John Purcell, J.P., Dublin.

Silver Wedding.

HARLEY-RAE.—At Royal Hotel, Falkirk, on August 22, 1893, by the Rev. John Scott, Thomas Harley, chemist and druggist, Perth, to Elizabeth Cowan, daughter of Mr. Thomas Rae, Merchiston Place, Bainsford.

Deaths.

BURN.—At 4 Albert Street, Arbroath, on August 16, Mr. David Haily Burn, chemist and druggist, aged eighty. Mr. Burn, who was a native of Thurso, entered on his apprenticeship at Haddington in 1852, and subsequently gained further experience at Alloa. In 1853 he commenced business on his own account in Arbroath. He retired about five years ago. Mr. Burn was a pioneer in the weekly half-holiday movement. For many years he was an esteemed office-bearer in the U.F. Church. He is survived by a widow, two sons, and three daughters, one son being a medical practitioner in Birmingham. Sir George Burn, the late Mr. Burn's brother, is connected with the Bank of Ottawa.

GILLMAN.—The death has occurred at Auckland, N.Z., of Mr. Thomas Rice Gillman, aged ninety. Mr. Gillman was at one time a chemist and druggist in Newport (Mon.). He emigrated in 1863, and for many years carried on business in Auckland.

KILLICK.—On August 13, Daisy Victoria, wife of Arthur William Killick, 24 Colfe Road, Forest Hill, London, S.E., South London representative of Corbyn, Stacey & Co., Ltd., and now of the A.S.C. (M.T.).

Died on Service.

COUPLAND.—At Park Square, Leeds, recently, Captain Herbert Coupland, aged forty-five. Captain Coupland, who was a son of the late Mr. Joseph Coupland, chemist and druggist, Harrogate and Ripon, had a distinguished career in India, where his health eventually gave way under the strain of war work. He came home on sick-leave last May.

CROLL.—Private Alexander Croll, Cameron Highlanders, was killed in action in France on August 1, aged nineteen. Private Croll enlisted on attaining military age in March 1917: he was then in the third year of his apprenticeship with Mr. A. W. Ritchie, pharmacist, High Street, Montrose.

EMSLIE.—Sergeant David Emslie, Royal Highlanders, was killed in action in France on August 1, aged twenty. Sergeant Emslie joined the Army in May 1916, when he was in the last year of his apprenticeship with Mr. A. W. Ritchie, pharmacist, High Street, Montrose.

FOSTER.—Lieutenant Robert G. Foster, Canadian Forces, was killed in action in France on August 9, aged twenty-seven. Lieutenant Foster, who was the second son of Mr. H. S. Foster, chemist and druggist, Forest Hill Road, London, S.E., joined the Forces on the outbreak of war, and came over with the first Canadian contingent, subsequently receiving his commission. He leaves a widow, to whom, in a letter of condolence, his commanding officer writes: "He died gallantly, ever ready and willing, died as a soldier and a gentleman."

HEWSON.—Sergeant Geoffrey Halliday Hewson, West Yorkshire Regiment, is reported killed in action. In civil life Sergeant Hewson was with Handford & Dawson, chemists, Harrogate.

MUNDEN.—Private Alan S. Munden, Herefordshire Regiment, was killed in action in France on July 23. Prior to enlistment Private Munden was an apprentice to Mr. A. W. Sanders, pharmacist, Chard. He had recently been transferred from Palestine, and had been in France only a few days.

ROUHAN.—Lance-Corporal William Rouhan, K.O.Y.L.I., has been killed in action. Lance-Corporal Rouhan enlisted, on the outbreak of war, from the staff of J. Nicholson & Sons, Ltd., manufacturing chemists, Hunslet, Leeds, and was wounded in action on many occasions (C. & D., 1917, p. 1033).

Personalities.

MR. F. P. LAWS, second son of Mr. J. J. Laws, chemist and druggist, Hampton-on-Thames, has passed the Army Entrance examination and is about to enter the Royal Military College, Sandhurst. His elder brother, Second-Lieutenant J. J. Laws, is on active service in France (C. & D., June 1, p. 33).

MR. T. EDWARD LESCHER, director of Evans Sons Lescher & Webb, Ltd., in a letter to "The Times" states that it has been decided to build new science laboratories at Stonyhurst College as a memorial of the *alumni* who have been killed in the war. Mr. Lescher was educated at Stonyhurst, and is Chairman of the War Memorial Council.

In the first list of enemy aliens who are to be interned under the advice of Mr. Justice Sankey's Advisory Committee occur the names of Fritz F. G. Boehm, chemical manufacturer, Sudbury Hill, Harrow; William Bredt, director of a chemical company, Cromwell Road, Kensington; Paul Joseph Heinrichs, director of Carl Zeiss, Belsize Road, Hampstead; Carl Hermann August Wohlfahrt, perfumery-works foreman, Highbury.

MR. HENRY J. DALGLEISH, well known to the majority of London chemists as the town representative of Ford, Shapland & Co., Ltd., was the victim of a collision on the Victoria Embankment, on August 21, between a taxi-cab and a motor brougham. Luckily, a masonic case that he was carrying mitigated the effect of the concussion; and although thrown down and bruised, he expects no further consequences. Mr. Dalglish was on holiday at the time.

MR. THOMAS STEPHENSON, Ph.C., F.C.S., Edinburgh, is on a visit to the United States. Mr. Stephenson went out under the auspices of the British Government, and is addressing meetings at various centres on behalf of the British War Aims Propaganda Committee. He has recently been in California. In June he was at Kansas City as a representative of the British Association of Rotary Clubs. Prior to sailing for America, Mr. Stephenson was presented by the members of the Edinburgh Rotary Club with a gold wristlet watch and a silver cigar-case, as a mark of their appreciation and esteem.

MR. S. H. STROUD, A.I.C., Ph.C., son of Mr. H. N. Stroud (a director of John Richardson & Co. (Leicester), Ltd.), has been appointed Lecturer in Pharmacy and Chemistry to the University of Sydney, New South Wales. Mr. Stroud was educated at Alderman Newton's School, Leicester, and King's College, London. After studying at the Bloomsbury Square School of Pharmacy, he passed his Minor examination in 1911, taking medals in practical and theoretical chemistry and honours in pharmacy, botany, and materia medica, and was awarded the Hewlett Exhibition. The next year he passed his Major and secured the Pereira Medal. His crowning success followed when he passed the examination for the Associateship of the Institute of Chemistry. For the next two years Mr. Stroud acted as demonstrator in chemistry at Bloomsbury Square, and in 1914 received an appointment as analyst to the Queensland Government at Brisbane, a position which he now resigns to take a leading part in pharmacy in Australia.

Trade Notes.

STOCKTAKING.—Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C. 1, will close their warehouses on August 31 for the purpose of stocktaking. Only emergency orders can be executed on that day.

DUBARRY'S DENTRIFICES.—The Standard Tablet Co., Ltd., Hove, deal in their advertisement with a series of dentrifices for chemists' trade. These are Glyntos dental cream, Perlysia tooth-paste, Menthill dental cream, and Gly-tymol tooth-paste. The series is packed in a superior manner, and any variety can be delivered promptly from stock.

WEIGHING-MACHINE ACCESSORIES.—S. Maw, Son & Sons, Ltd., Aldersgate Street, London, E.C., bring to the notice of our readers two useful accessories to the personal weighing-machines, which are now to be found in most chemists' shops. Whether the proceeds are devoted to St. Dunstan's Hostel or to the expenses of the establishment, the money-box and weighing-machine cover are equally acceptable. The particulars are given on "Maw's Page."

"L'OFFICE COMMERCIAL FRANÇAIS EN ANGLETERRE" has established a bureau at 153 Queen Victoria Street, London, E.C. 4. The "Office" is administered by a Committee nominated by the French Chamber of Commerce in London, and has been placed under the control of the Minister of Commerce and the Minister of Foreign Affairs. The object of the bureau is to foster and develop by every means commercial relations between French producers and British consumers.

"ESSENTIAL OILS AND PHARMACEUTICAL PREPARATIONS."—Under this title Stafford Allen & Sons, Ltd., Cowper Street, London, E.C. 2, have produced a booklet describing briefly the history of the company and its chief products. The booklet, which is beautifully produced and well illustrated, is being distributed to visitors to Messrs. Stafford Allen's stand at the British Industries Fair at Glasgow. Our subscribers who would like a copy of the booklet should write to Messrs. Stafford Allen for one.

CHESTER COLLEGE OF PHARMACY.—Through an oversight, mention of the Chester and North Wales College of Pharmacy was omitted from the list of institutions where pharmaceutical instruction can be obtained. Mr. K. S. Dickinson, Ph.C., the Principal, has recently had a pass-list of 100 per cent. of the candidates which he prepared for the Assistants' diploma of the Society of Apothecaries. The College also prepares students for the Qualifying and Major examinations. The next term opens on September 17.

COD-LIVER-OIL EMULSION.—Ayrton, Saunders & Co., Ltd., 34 Hanover Street, Liverpool, send us a sample of their cod-liver-oil emulsion, which is packed in various styles—the series of labels gives plenty of choice to the chemist. The emulsion is thin and easily poured out of the bottle: it is, moreover, inseparable and of a pleasant flavour. It may seem early for chemists to think about winter stocks of cod-liver oil emulsion, but, bearing in mind the increasing transport difficulties and the shortage of wholesalers' staffs, our readers would be well advised to anticipate as much as possible winter wants.

BRITISH COAL-TAR DYES.—Brotherton & Co., whose exhibit at the British Scientific Products Exhibition was referred to in the *C. & D.* last week, have issued a neatly illustrated brochure devoted to wool-dyes manufactured at Port Rainbow. It will be remembered that last year Colonel Brotherton, of Leeds, purchased the Mersey Chemical-works, and since then considerable developments have taken place there in the production of coal-tar dyes and other products, a short account of which is given in the brochure. These developments on the River Mersey are likely to be of the greatest importance to the coal-tar and kindred industries.

THE SALICYLATES INDUSTRY.—The London Chemical-works, Ltd., Scott's Road, Southall, have issued a pamphlet regarding the establishment of the salicylates industry in this country. The introduction recalls the steps that were taken, on the outbreak of war, to produce in this country the salicylates which had hitherto been the monopoly of Germany. Further, there are stated the present position and the steps which must be taken to prevent the home product being harried by the Huns after the war. Then follow analytical details of each of the company's products, which show that the quality is exceptional and in most cases the purity surpasses the enemy products.

THE ASHBY-DE-LA-ZOUCH GUARDIANS have ordained that a glass eye provided by them for a workhouse inmate shall remain their property. This is one of those intellectuations that, as Dogberry said of reading and writing, "come by nature."

Trade-marks Applied for.

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration, see "The Chemist and Druggist Diary," 1917, p. 220.

(From "The Trade-marks Journal," July 24, 1918.)

"REGISTRAR" for perfumery, etc. (48). By Breidenbach & Co., 48 Greek Street, Soho Square, W. 1. 383,546.
"SAUNDREXAN" for fireproofing solutions (50). By J. J. Evans, 1 Park Avenue, Church End, Finchley, N. 3. 383,587.

(From "The Trade-marks Journal," July 31, 1918.)

"ANILOS" and device; for aniline salts (1). By The Aniline Salt Manufacturing Co., Canal Head, Peckham, S.E. 15. 383,104.
"KILZALL INSECTICIDE FUNGICIDIN" on oval label with picture of spray and caterpillar ("Kilzall" disclaimed); for insecticides and fungicides (2). By Stonehouse Works Co., Spon Lane Mills, Houghton Street, West Bromwich. 383,565.
"DIOXYTAS" for chemicals (2). By the "Sanitas" Co., Ltd., Locksley Street, Limehouse, E. 14. 383,953.
"THYMOCUPRINE BRAND ANTI-CATARH POWDER" with description, etc.; for anti-catarh powder (3). By A. C. Brookes, 18 Kipling Avenue, Wellsway, Bath. 381,862.
"ARTOR BRAND PILLS" for pills (3). By A. H. Taylor, 116 Shepherd's Bush Road, Hammersmith, W. 6. 382,891.
"C. & E. MORTON, LIMITED, LONDON, ENGLAND," surrounded by device of prize medals; for medicinal chemicals (3), food-substances (42), and perfumery, etc. (48). By C. & E. Morton, Ltd., 107 Leadenhall Street, E.C. 3. 383,435/436/437. (Associated.)
"POMAX" for all goods (42). By American-Burtonizing Co. and Wallerstein Laboratories, 171 Madison Avenue, New York, U.S.A. 383,468.
"CHRYSOL" for all goods (48). By J. J. Denton, Ltd., 7 Williamson Square, Liverpool. 383,116.
"ULTRAVI" for perfumery, etc. (48). By The C.V.O. Chemical Works, Ltd., Petersham Road, Richmond. 383,616.
"SILVER SLIPPER" for perfumery, etc. (48). By J. Margerison & Co., Leighton Street, Preston. 383,747.

(From "The Trade-marks Journal," August 7, 1918.)

"CHILDREN'S FRIEND" on sack carried by Father Christmas; for all goods (2) and for medicated soap (3). By J. Hargreaves & Son, Ltd., 81 Binns Road, Edge Lane, Liverpool. 382,423/4. (Associated.)
"MAXOL" for medicinal chemicals (3). By J. Morgan Richards & Sons, Ltd., 46-47 Holborn Viaduct, E.C. 1. 383,171.
"NUCLEOSIL BRAND REDUCED COLLOIDAL SILVER PREPARATION" for a medicine (3). By The Pharmaco-Chemical Products Co., Ltd., 59 Eastcheap, E.C. 3. 383,434.
"PANREMO BRAND" for medicinal chemicals (3); "PANREMO" for perfumery, etc. (48). By W. Taylor, 118 High Street, Hampton Hill, Middlesex. 383,780/1. (Associated.)
"SALIVOL" for edible oils (42). By Sterns, Ltd., 16 Finsbury Square, E.C. 2. 382,977.
"DRUID" for food-substances (42), fermented liquors, etc. (42), and for perfumery, etc. (48); "BARN" for food-substances (42), fermented liquors, etc. (42), goods (42), and perfumery, etc. (48). By J. Burton & Sons, Ltd., Talbot Street, Nottingham. 383,753/4/5/6/7/8/9. (Associated.)
"FORTREVIVER FRUIT POON" under picture of wineglass full of fruit; for a beverage (42). By H. & C. Newman, 41-42 Upper Rathbone Place, W. 1. 383,852. (Associated.)
"TUI" under picture of bird; for food-substances (42). By J. Nathan & Co., Ltd., 88 Gracechurch Street, E.C. 3. 383,892. (Associated.)

Information Department.

INFORMATION WANTED.

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

155/63. "Soldiers' Friend" polish	158/53. "Creme du Jour." (Felix Brisard)
157/38. International stock food	158/30. Lloyd's Specific Gel-venium.
157/10. "Tinair Solidified Brilliantine"	157/5. "Chypoids"

INFORMATION SUPPLIED.

Inquiries regarding the following articles have been answered. The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C. 4:

Acetozone, 154/37	"Manalin," 152/55
Chamberlain's Cough Remedy, 155/41	McClinton's soap, 153/7
Chemists' overalls, 155/72	"Moorland" brand lozenges, 13/55
"Digestin" tablets, 153/37	Phytin, 155/44
"Ectodyne," 155/47	Tablet-making machinery, 154/35
"Empire" brand henna shampoo-powders, 153/58	"Victory" veterinary specialties, 155/45
Harrison's rat-poison, 157/44	"Zonvac" vacuum flasks, 251/9
Hooker's malted milk, 155/72	"Zotos" seasickness-remedy, 154/57
"Lactoline" toilet cream, 155/42	
"Little Kitchener" stove, 154/45	

Observations and Reflections

By Xrayser II.

The Tariff for 1919

has been referred to in a perfunctory sort of way at the meetings of several Insurance Committees reported in the *C. & D.* and elsewhere, but as respects England and Wales I have not seen any definite proposal with regard to it, and I hear that the Pharmaceutical Council, with its usual diplomatic dilatoriness, has postponed the consideration of the subject till its meeting in October, when it will be too late to have any effect, unless in the meantime such an expression of opinion on the part of the trade as will force the Council's hand has been made. Our Scottish friends have already formulated their demand for better pay, and it will be a great mistake if we are so preoccupied with the military-service question as to let the opportunity for a revision of our own terms pass unimproved. The time is already short enough; the Council will do nothing unless it is compelled: is the Progressive Pharmacy Club doing anything? Its action last year had undoubtedly a salutary effect; its power ought to be threefold now—what it was then, and since our official leaders are so lax we are right in looking to the Club for a lead.

Mr. Humphrey's Suggestion

of a twelvemonth's course of instruction precedent to apprenticeship (to which you give a deserved welcome) would have many advantages, but there are difficulties in the way and possible drawbacks to be considered. Special schools of instruction would be required all over the country, considerable expense would be involved, and possibly expectations might be excited in the pupils' minds that their subsequent experience would sadly disappoint. The more natural way of beginning at the bottom and gradually rising to the top has advantages too, the chief of them being that no disillusion follows the first entrance on the career, which, on the contrary, improves at every step. And in my opinion nothing can compensate for the loss of that thorough grounding in shop and warehouse work which early apprenticeship gives and renders necessary, but which might be found impracticable under Mr. Humphrey's scheme. Would the scientifically trained postulant submit to it? I am not throwing cold water—or not wishing to—on the suggestion. I fully admit the imperfections of our present apprenticeship. I have had many assistants direct from their apprenticeship to good firms who were of less use to me than an intelligent shop-boy of my own training. They had virtually no theoretical knowledge, had never handled a prescription, and their practical acquaintance with the business was limited to the putting up of stock and “chaffing” nursery-maids. The National Insurance Act has altered things a little; it has made it more possible for an apprentice to learn his business in actual shop-work, and (of course) has made a preparatory training a more feasible proposition. But there is still a good deal of force in what I have said.

The Inclusion of Perfumes

in the list of articles subject to tax as luxuries whatever their price marks a great change of feeling with regard to perfumes generally. Formerly these were mainly, if not entirely, looked upon as we now look upon antiseptics and disinfectants. It would be rash to assert that they are not even yet used occasionally as substitutes for the latter, and as antiseptics many of them no doubt have a certain value. But in days when cleanliness was not only next to godliness, but was much less common, they were essential to the avoidance of intolerable nuisances. In this respect our social and personal habits have so improved that, as a rule, it is unnecessary to disguise what we have learnt to destroy. The poet's gibe—

“You say you're sweet; but who should know

Whether you are so sweet or no?

From powders and perfumes keep free,

Then we shall smell how sweet you be,”

has lost most of its point. There are still circumstances

and conditions, however, in which certain perfumery articles may be regarded as necessities, and seeing how heavily these are already taxed the new impost on them is a real hardship.

A Question Asked by Mr. Skinner

at the last Council meeting, though it received a very imperfect reply, elicited some curious information concerning the appointment of the Codex Committee. This Committee, which is officially styled a Sub-Committee of the so-called Scientific Advisory Committee, dates from 1914, and has never been reappointed since that time. The S.A.C., which is a sort of castle in the air, having a name but no local habitation, since it never meets (and presumably, therefore, never advises) is reappointed yearly, and as at present composed dates from last June. The Codex Committee is, therefore, three years older than its putative parent—*filius ante patrem*—and Mr. Skinner may well ask who appoints it. He was not told. The further question may be asked, In what sense is it a Sub-Committee of the more recently appointed S.A.C.? The case deserves the attention of the future historian of committees, and if he is, as every historian should be, a scientific writer, his opinion on the subject should be worth having.

Poisoning by Broom

is not common, though the plant, and especially perhaps the seed, undoubtedly has poisonous properties. The “ornamental broom” of the recent case at Edinburgh is, I suppose, a foreigner, Spanish or Portuguese, and is probably more active than our native variety. The Spanish broom is said by Gerard and other herbalists “to cause to vomit with great violence, even as white Hellebor.” It is identified with the spartium of the ancients, which is reported to have been very violent in action. Stenhouse (quoted in “Pharmacographia”) says that the amount of sparteine in broom depends much upon external conditions, that grown in the shade yielding less than that produced in sunny places. Shepherds, he adds, are well aware of its narcotic properties, by which sheep browsing upon it are occasionally affected.

Gums and Resins

have often proved stumbling-blocks to the pharmaceutical student; there is a good deal of uncertainty still as to the composition and source of a good many of them. Mr. E. J. Parry's little book on the subject in Pitman's “Common Commodities and Industries” Series (2s. net), though it is written more from the commercial than from the medicinal point of view, may be recommended as a very handy and a sufficiently comprehensive guide to their general characteristics. The chapters dealing with balsams and medicinal resins, and with true gums, will best repay the pharmacist's attention, the latter especially being an admirable summary of the facts most necessary to be known concerning gum Arabic and gum tragacanth. The arrangement of the subject into chapters is a little arbitrary in one respect, the medicinal substances being by no means confined to the chapter devoted to them. Gamboge, asafetida, ammoniacum, and galbanum, for instance, have a chapter apart from others of their kind, while opoponax, tacamahac, and I might say sagapenum, which are classed with the medicinals, have no longer any place in medicine. Mr. Parry says that elemi has not either, but here he is mistaken, though the gum is no longer official. Dragon's-blood, too, is still occasionally met with as an astringent in veterinary receipts. The description Mr. Parry gives of tacamahac as having “a slightly spicy odour” is curiously at odds with the reason given by old writers, its “pungent and acrid scent,” for the neglect into which it has fallen. It is also curious that the resin from *Ferula tingitana*, which Mr. Parry rightly mentions as an adulterant of ammoniacum, is said in “Pharmacographia” to be the true ammoniacum of the ancients. Reference is made on p. 29 to a valuable article on shellac in the *C. & D.* of January 31, 1903. Mr. Parry claims to have shown that the U.S.A. “lead number” is fallacious as a standard for asafetida, and he does not accept the received analysis of copal varnish.



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- "Sanitas Polishes."
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Index Folio 670

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Editorial Articles.

Employment for Disabled Soldiers.

THE significance of the appointment by the Ministry of Labour of a Committee of pharmacists to advise on the question of training disabled sailors and soldiers may have escaped notice. This Committee, consisting of the President (Mr. W. L. Currie), the Vice-President (Mr. E. T. Neathercoat), and Messrs. Sargeant, Skinner, and Rowsell, was nominated by the Council in July and has been appointed by the Ministry of Labour as the "Trade Advisory Committee (Disabled Sailors and Soldiers)—Pharmacists." Two meetings of the Committee have been held, at which representatives of the Ministry of Labour were present, and although a scheme has been drawn up in concrete form it is not to be made public until accepted by the Government. It was stated, however, that the Government had expressed a willingness to maintain and pay for the education of suitable men for a period not exceeding one year from their discharge, and that the concessions to discharged sailors and soldiers will be of a substantial character. We may recall that last November we dealt with the subject at length and did our best to call the attention of the authorities to the matter so that justice should be done to the young men who have made such sacrifices for the country. Unfortunately, the official view was that advantage should be taken of the war to fasten a curriculum on examination candidates so that when undergraduates returned from the war the Council could point with pride to its efforts to make it difficult for them to qualify. We are glad to see that under pressure from the Government the Pharmaceutical Council has been brought into a better frame of mind. The disgraceful attempt to obtain by-laws imposing a curriculum has been checked by the Privy Council, and those who at the annual meeting backed up our protest against such an injustice to demobilised men have reason to be proud of the success of their effort. In regard to the proposed scheme of educating for pharmacy disabled and demobilised sailors and soldiers we may recall that early in 1917 the Employment Department of the Ministry of Labour produced the first of a series of reports drawn up in collaboration with the War Pensions, etc., Statutory Committee, the object being to give definite information about trades and industrial processes which would appear suitable for the employment of discharged men and define the financial assistance the Government was prepared to give. Special attention has been given by consultation with traders to the problem of training, because many trade experts held the view that certain trades could not be taught to adult people in a reasonable time. So far eighteen reports have been issued dealing with a variety of employments. The first referred to attendants at electricity stations, and others followed on employment in picture-palaces, tailoring, agricultural motor-tractor work, the furniture-trade, boot-and-shoe trade, engineering, etc. So far no occupation has been dealt with the entrance to which is subject to statutory restrictions, so that the proposal to deal with chemists' assistants marks a distinct step in these reports. The nearest analogy to the conditions in pharmacy is Report No. IX., which concerns dental mechanics. In this case the Government undertakes to see that suitable candidates are instructed in dental mechanics for a year and during that time ensures

suitable maintenance allowance. This part of the practice of dentistry is not subject to legal restrictions, but it may be that in the recommendations of the Dentists' Act Committee, which has not yet reported, some protection will be given to trained mechanics. The allowance for maintenance is 27s. 6d. per week for a disabled soldier who has been a private, with additional grants for a wife and children. We may take it that the same grant will be made in the case of suitable men desirous of taking up employment in pharmacy. The problem, however, is complicated in the case of pharmacy by the statutory requirements of preliminary education and the three years of dispensing practice which are conditions precedent to entry for the Qualifying examination. We must now wait until the scheme is made public, but there is no doubt that considerable alterations will be needed in the present requirements. It seems as though chemists will be enabled to obtain skilled assistance of a kind hitherto unknown in the trade. If the Council takes a wide outlook of the position, it can so arrange the plan that the Qualifying examination can be divided and the apothecaries' assistants' claims placed on a basis which will close the Blackfriars mill so far as the supply of dispensers is concerned.

Indian Essential Oils.

MR. PURAN SINGH, chemical adviser to the Forest Research Institute, Dehra Dun, Nilgiris, contributes to the Indian Forest Records (Vol. V., Part VIII.) the following three notes on the production of essential oils in India:

1. Note on the eucalyptus-oil industry in the Nilgiris.
2. Note on the distillation of geranium oil in the Nilgiris.
3. Note on the manufacture of wintergreen oil in India.

In regard to the distillation of eucalyptus oil it is a curious fact that although there are immense plantations of *Eucalyptus globulus* in the Nilgiris, and that the distillation of the essential oil from the leaves is simple, no attempt has hitherto been made to develop the industry on a commercial scale, Australia being almost our only source of supply. The matter being one worthy of investigation, Mr. Singh visited Ootacamund to study the conditions under which the local industry is carried on, and to advise in regard to the possibility of improving the methods of distillation, and of further developing a business which should yield a fair return. Taking an experimental plant with him, Mr. Singh bespoke the interest of the local distillers in his work. At present the largest still in use in the Nilgiris is one which takes about 800 lb. of leaves at a charge, taking about six hours for distillation. On this scale, the cost as given by the Nilgiri distiller is Rs. 4 per 6 lb. of oil, and his minimum sale price Rs. 6-8, giving a margin of a minimum profit of Rs. 2-4 per charge, or six annas per lb. The railway freight per goods-train per maund (of 82 lb.) from Ootacamund to Madras, Bombay, Calcutta, and Lahore works out at a little more than one anna per lb. Mr. Singh considered that if the leaves were allowed to dry in the forest the quantity of the dried leaves necessary to produce 1 lb. of oil would be about 66 lb., against 114 lb. of the fresh leaves, which would reduce the cost of carriage by about 60 per cent. Collection he regards as quite easy, as one female labourer at four annas per day can collect in one spot, ready for cartage, at least 500 lb. of shade-dried leaves per day. The following interesting conclusions were arrived at by Mr. Singh:

(1) The mature leaves drawn from trees planted in 1863 gave an average yield of 1.16 per cent. of oil from fresh leaves containing 49 per cent. of moisture, or 2.28 per cent. calculated on dried leaves. (2) The leaves taken from trees of ten years' coppice growth yielded, on the average, 0.875 per cent. of oil on the fresh material, or 1.48 per cent. on the dry material. (3) The tender leaves of young shoots of one year's coppice growth gave 0.83 per cent. of oil on fresh material and 1.61 per cent. on the dry material. (4) The green leaves employed in No. 2 above were then shade-dried, having been exposed to the mild sun

of the Nilgiri winter. They yielded 1.39 per cent. of oil on the material containing 10 per cent. of moisture and 1.54 per cent. on the completely dried material. (5) Leaves dried *in situ* and sent to Dehra for distillation gave only 0.92 per cent. on the material containing about 10 per cent. of moisture. It is therefore apparent that the leaves which give the best results are those taken from old trees of original growth. The tender leaves of young shoots of one year's coppice growth, however, give such satisfactory results that a plantation meant to be worked solely for the distillation of oil could be annually cut back so as to utilise each year's fresh growth. There is practically no loss of oil when leaves are dried *in situ* in the forest, for the simple reason that the oil occurs as an oleoresin under the waxy outer covering of the leaf. The advantage of drying the leaves in this way is that for the same charges of distillation and supervision 50 per cent. more oil is obtained. The drying of leaves in the open sun should be avoided except during the winter, when the temperature is low. The final conclusions are: (1) That it is essential to distil the leaves, shade-dried *in situ*, on a scale of at least 1 ton per charge, in order to reduce the cost of production. (2) The initial outlay of capital on mechanical contrivances calculated to reduce the cost of the transport of leaves is recommended in preference to making arrangements from time to time and dealing with the unskilled and half-hearted labour obtainable on the Nilgiris. This refers to details of organisation which an enterprising manufacturer can easily overcome, and thus secure the permanent reduction of his recurring charges of transport. (3) The design of the still recommended for adoption can be made in copper or in iron lined with copper, or in iron only, the last being the cheapest. The catch-still will serve the purpose of holding back impurities and the very heavy sesquiterpenes, thus giving in the first distillate as good an oil as could be produced by redistillation. (4) Since it is impracticable to adopt the Australian system of "lopping" in existing plantations, it may be found possible to start special plantations on a very short rotation mainly for the purpose of leaf-supply, the resulting fuel being of secondary importance.

It was found that the Nilgiri oil is B.P. (about 60 per cent. eucalyptol by volume) except as regards the solubility test, while in some cases the specific gravity is below the B.P. requirements.

It appears to us that there is little possibility of the industry developing much during the war, as the construction of large copper stills in India is almost impossible owing to the prohibitive cost of the materials. Moreover, the market is fairly well supplied with the Australian oil, although it would be useful to have an alternative source of supply within the Empire. Mr. Singh has endeavoured to collate all the information available on the subject of eucalyptus oil, in this note, and he presents it in a concise form. In the note on the distillation of geranium oil in the Nilgiris, Mr. Singh recommends that its cultivation should be extended to provide the eucalyptus-oil distiller with an alternative material to distil, as the climate of Ootacamund is well suited for its cultivation; while in the note on the distillation of wintergreen oil Mr. Puran Singh is of opinion that it would be a profitable industry in Assam provided adequate arrangements were made to cultivate the plant.

Profit on Elliman's Embrocation.

CIRCULARS have been issued by Elliman, Sons & Co., in which they protest against a statement made at the annual meeting of the Proprietary Articles Trade Association with reference to the profit upon Elliman's Embrocation, and submit the new terms for their products, together with comparisons between the new and old terms for the Universal Embrocation. This article is now marketed in one size only, to be sold at the face value of 1s. 9d., as against the former face value of 1s. 3d., with a minimum price of 1s. 2d. (It will be noted that a 6d. stamp is affixed whereas at the old price a 3d. stamp only was required.) The wholesale price is now 19s. per dozen, less 10 per cent. for any quantity of the value of 3l. 16s., or above. This shows a margin or gross profit of 10½ per cent. on cost and 9½ per cent. on sales when the article is purchased in small quantities, and a margin of nearly 23 per cent. on cost and 18½ per cent. on sales when advantage is taken of the discount terms. The "pre-May

terms 1918" for the 1s. 3d. article are stated as 12s. 9d. per dozen, less 10 per cent. for large quantities. At a minimum retail price of 1s. 2d. per bottle, this showed a margin or gross profit of nearly 10 per cent. and 9 per cent. on sales for small quantities, increasing to nearly 21½ per cent. on cost and 18 per cent. on sales when the discount of 10 per cent. was deducted. It will thus be seen that the new terms show a slight advantage to the retailer throughout, and the statement made at the P. A. T. A. meeting (*C. & D.*, July 20, p. 46)—viz., that the profit had been reduced from 17 per cent. to 11 per cent.—was not justified by the facts of the case. In the circumstances Elliman, Sons & Co. have an undoubted grievance, but this hardly warrants their peculiar method of presenting the comparison of terms and profits upon the assumption that chemists are mere collectors of revenue as regards stamps, and that the cost of the revenue stamps should therefore be omitted from the account when calculating profits. It would be just as sound to argue that the cost of bottles, corks, labels, etc., should be omitted, on the ground that chemists are mere collectors of the cost of these to the manufacturer. Profit must be regarded as interest on capital invested, irrespective of the ultimate destination of any of the capital invested in stock. We gather from one of the circulars that Messrs. Elliman's grievance is that no one protested at the meeting that the amount of the profit was incorrectly stated. There is not much in this point, however, as no one in the drug-trade would think of deducting the amount of the revenue stamp before computing profits, so that if some one with the exact figures before him had given the yield of profit correctly it would hardly have satisfied the proprietors. It does not seem difficult now for an understanding to be arrived at, and it is not too late for a round-table conference, but Messrs. Elliman, on their part, should justify or apologise for their treatment of two well-known wholesale houses. The fact that names of representatives of these houses appear on the letter-paper of the Proprietary Articles Trade Association is not a sufficient reason for the step that was taken.

Saccharin Supplies.

LAST week we announced that August 15 was the final day on which shipments of saccharin could be made from the United States, and we now understand that the British Commission on the Sugar Supply are not supporting further applications for importation, that body expressing the opinion that the supplies of British-made saccharin are improving and that increased quantities will, it is hoped, be available shortly. The situation now is that there is still a lively demand for imported saccharin, and the market among dealers has a rising tendency. There are, of course, certain supplies on the water, but they are not likely to be sufficient to cope with the demand. In the United States saccharin is offered in two forms, "insoluble" and "soluble," and it is a curious fact that the former, which consists of full 550 strength pure saccharin, is always quoted at about \$5.00 per lb. less than the "soluble," which is supposed to be only of 500 strength, the balance being made up of bicarbonate of soda. This market is, however, not concerned with this point, as the principal demand is for the so-called "insoluble," which is the only form dealers offer.

Alkali-works Report.

THE ANNUAL REPORT for 1917 on Alkali, etc., Works has just been issued. The number of registered works in the United Kingdom is 1,582—22 more than in 1916. The number of inspections made is considerably smaller than in the previous year, and is accounted for by shortage of staff and curtailment of travelling facilities. The average figures relating to the escape of acid gases are slightly less favourable than those of the two preceding years. Military demands for labour, added to transport difficulties, have affected the standard of working, but the situation has been faced, and appreciation of the work done is recorded. As in 1916, no proceedings were entered into for the recovery of penalty incurred through

contravention of provisions of the Alkali, etc., Works Regulation Act, 1906. The use of nitre-cake, in place of sulphuric acid, for decomposing salt in salt-cake furnaces, was further extended during the year, so that the relative production of hydrochloric acid per unit of salt-cake was again lessened. A new works for the production of alkali by electrolytic methods is expected to influence local manufacturing units. It is estimated that about 50,000 tons of potash is carried away annually in the gases from iron blast-furnaces in Great Britain. The cement industry, it is noted, offers possibilities of potash-recovery. The loss of tin under the present method of working its ores is estimated at over 35 per cent. In the manufacture of sulphuric acid, a new feature was the introduction of catalytic methods for supplying the necessary nitrogen compounds for the chamber process. The ammonia products manufactured from gas liquor were distinctly greater than in 1916, in spite of the inferior quality of coal and other drawbacks. It would appear that the ammonia-supplies available in the near future will prove ample for all requirements. Electrolytic methods for chlorine-production continue to expand, and there has been a development in the output of chlorates. The Report gives prominence to the estimation-processes adopted; and it ends with a warning concerning the possibility of looking too much to the Government for guidance. "Government departments," it concludes, "will doubtless be active in their proper spheres, and may do good service in certain directions, but it is essential that there should not be lacking the solid foundation of skilled, alert, scientific control, combined with intelligent, sustained, and willing work on the part of everyone associated with individual works in the various branches of manufacture, as well as united effort on the part of the owners of these works. To elicit willing activity on the part of all by suitable recognition is to lay the foundations of success in the coming strenuous competition amongst the nations."

Inspectors of Explosives' Report.

THE forty-second annual Report of the Inspectors of Explosives, covering the year 1917, has recently been issued. The present staff consists of five inspectors and an assistant-inspector, with Messrs. P. V. and F. H. Dupré as chemical advisers. The Report begins by drawing attention to the increasing demands on the Department, and gives a list of seven Government Committees, the requirements of which "involved the preparation of reports and numerous visits to all parts of the Kingdom." Reference is made to the Orders in Council relating to picric acid (*C. & D.*, 1917, p. 605) and to trinitrotoluol. Seventeen new factories have been licensed during the year, making a total of 183, to which in the twelve months 469 visits have been paid (384 in 1916). Two cases are mentioned in which fines were imposed for irregularities, but as a whole the standard of working is considered satisfactory. The importation of explosives is practically extinct, only four licences having been applied for in 1917. The number of new explosives examined "is still low, and will probably remain so till the end of the war." The number of accidents reported is 701 (641 in 1916). Tests have been made of the relative efficiency of hand and of automatic sprinklers in extinguishing fires caused by picric acid or by trinitrotoluol; and experiments have been carried out by Dr. Wheeler regarding the relative inflammability of the dusts of tetryl, picric acid, amatol, trinitrotoluol, and dinitrotoluol.

QUININE IN GREECE.—Although the provision of quinine by the Greek Government is regarded as ample, a fear exists that the only remedy against malarial fever may be exhausted. Doctors are urged not to prescribe quinine unless it is really required.

ILLICIT DEALING in pharmaceutical chemicals on a large scale has been brought to light by the Budapest police. Profiteers, mostly Galician immigrants, bought up valuable remedies still obtainable in Hungary and exported them to Austria, Germany, and the Ukraine. The police have confiscated large stocks of cocaine, strychnine, and salicin worth several hundred thousand kronen.



EDUCATIONAL INFORMATION



Learning by study must be won, 'twas ne'er entailed from sire to son.

(Continued from p. 655.)

Medicine.

"Pestilence has ever been the opportunity of medicine," stated Sir Geo. Newman recently in a report on medical education in England. We would rather say that the evolution of the practice of medicine has depended upon the efforts that were needed to make up for the defective equipment of medical practitioners which plagues and epidemics brought to light. In our time, however, the National Insurance Act has been a potent factor in establishing the fact that the general practitioner is but poorly provided with modern means of diagnosing disease, and this in its turn has brought about a demand for central establishments where provision of an adequate clinical equipment can be ensured. The State has, in the case of venereal diseases, taken the responsibility of providing medicine for sufferers, and there seems no reason why in the case of other diseases, where the afflicted persons are much more entitled to collective sympathy, similar action by the State should not be taken. We mention these matters as indicating the trend of medical treatment, and we ought also to add that preventive medicine looms largely on the horizon at present. Before the war the prosperity of medical men had been greatly enhanced by the National Insurance Act, and the war has further added to the emoluments of the profession.

The educational conditions which have to be fulfilled before a person can be registered as a general medical practitioner embrace the following provisions as formulated by the General Medical Council:

(1) After attaining the age of sixteen years a person may pass an approved Preliminary examination, and within fifteen days of beginning medical studies he should register as a medical student at either of the following addresses:

The Registrar of the General Medical Council, 44 Hullam Street, Portland Place, London, W.

The Registrar of the Branch Council for Scotland, 54 George Square, Edinburgh.

The Registrar of the Branch Council for Ireland, 35 Dawson Street, Dublin.

(2) The medical studies must be undertaken at a school or schools approved by the General Medical Council, and the curriculum must not be less than five academic years (fifty-seven months) from the date of registration as a medical student.

(3) The student must pass in the course of his education a series of Professional examinations, these being arranged so that they come at the end of the prescribed studies.

All the Universities in the United Kingdom, the Royal Colleges of Physicians and Surgeons in England, Ireland, and Scotland, the Apothecaries' Society of London, and the Apothecaries' Hall, Dublin, are authorised to grant diplomas or degrees in medicine, surgery, and midwifery (three essentials), which enable the holder to be registered as a general medical practitioner, this being done by the General Medical Council at a cost of 5*l*. The *Regulations* prepared by the General Medical Council, and published at 6*d*., or 7*d*. post free, by Constable & Co., Ltd., 10 Orange Street, Leicester Square, London, W.C., should be obtained by medical students, who should obtain also the prospectus of the medical school at which they propose to study.

There are various educational and examining bodies for the diplomas and degrees in medicine, but all have to conform in the main to the curriculum of study laid down by the General Medical Council, which stipulates that every course should include the following subjects:

(1) *Physics*, including the elementary mechanics of solids and fluids, and the rudiments of heat, light, and electricity; (2) *Chemistry*, including the principles of the science and the details which bear on the study of medicine; (3) *Elementary Biology*;

(4) *Anatomy*; (5) *Physiology*;

(6) *Materia Medica and Pharmacy*; (7) *Pathology*; (8) *Pharmacology and Therapeutics*;

(9) *Medicine*, including medical anatomy and clinical medicine;

(10) *Surgery*, including surgical anatomy and clinical surgery;

(11) *Midwifery*, including diseases peculiar to women and to new-born children;

(12) *Theory and practice of Vaccination*; (13) *Forensic Medicine*; (14) *Hygiene*; (15) *Mental Diseases*; (16) *Anæsthetics*.

When a student has finished the first year's work he enters for the First Professional examination in physics, chemistry, and biology. After passing these he goes on to the second year's subjects, studies them, passes the Professional examination in anatomy and histology (sometimes pharmacology), and so on to the end of the curriculum. Every medical student must occupy at least five years in training, but it is usually six years before the average student becomes qualified. The following is a list of the Universities granting medical degrees, and the addresses from which particulars as to the curriculum, examinations, and fees can be obtained:

ABERDEEN.—Secretary, Mr. D. R. Thom, University of Aberdeen.

BELFAST.—Queen's University.

BIRMINGHAM.—Secretary, Mr. Geo. H. Morley.

BRISTOL.—The Registrar, Bristol.

CAMBRIDGE.—Dean of the Medical Faculty.

CARDIFF.—Registrar, University Registry, Cathays Park, Cardiff.

DUBLIN.—Trinity College and University College.

DURHAM.—The Secretary, The College of Medicine, Newcastle-on-Tyne.

EDINBURGH.—Mr. James Dowie, The University, and Professor Littlejohn, Dean.

GLASGOW.—Professor Noel Paton, M.D., The University.

LEEDS.—The Academic Sub-Dean and the Clerk to the Senate.

LIVERPOOL.—Dean of the Faculty of Medicine.

LONDON.—The Secretary, University, South Kensington, London, S.W.

OXFORD.—Regius Professor of Medicine, University Museum.

ST. ANDREWS.—Professor Kynoch, University College Medical Faculty, Dundee.

SHEFFIELD.—Registrar, Mr. W. M. Gibbons, M.A., or Professor J. B. Leathes, Dean of the Faculty of Medicine.

Medical diplomas, which are the registrable qualifications of the greater number of doctors, are granted by the following Corporations:

ENGLISH DIPLOMA.—Conjoint diploma of the Royal College of Physicians of London and Royal College of Surgeons of England. Particulars from Mr. F. G. Hallett, Secretary of the Conjoint Board, 8-11 Queen Square, Bloomsbury, London, W.C.

SOCIETY OF APOTHECARIES' DIPLOMA.—Apply to Mr. Frank Haydon, L.R.C.P., Water Lane, Blackfriars, London, E.C.

IRISH DOUBLE QUALIFICATION.—Conjoint diploma of the Royal College of Physicians in Ireland and the Royal College of Surgeons. Particulars from Mr. Alfred Miller, Royal College of Surgeons, Stephen's Green, Dublin.

DUBLIN APOTHECARIES' DIPLOMA.—The Registrar, Apothecaries' Hall, 40 Mary Street, Dublin.

SCOTTISH TRIPLE QUALIFICATION.—Granted by the Royal Colleges of Physicians and Surgeons of Edinburgh with the Royal Faculty of Physicians and Surgeons, Glasgow. Secretaries: Mr. D. L. Eadie, 50 George Square, Edinburgh, and Mr. Walter Hurst, Faculty Hall, St. Vincent Street, Glasgow.

MEDICAL EDUCATION

is obtainable at the Universities mentioned above and at other medical schools in Dublin, Edinburgh, Glasgow, and London. The following medical schools in London are constituents of the London University:

Charing Cross Hospital Medical College, Chandos Street, W.C. Dean, Dr. W. J. Fenton.

Guy's Hospital, London Bridge, S.E. Dean, Mr. L. Bromley.

King's College Hospital Medical School, Denmark Hill, S.E. Dean, Dr. H. Willoughby Lyle, F.R.C.S.

London Hospital Medical College, Turner Street, Mile End, E. Dean, Professor W. Wright.

London (Royal Free Hospital) School of Medicine for Women, 8 Hunter Street, W.C. Dean, Miss L. B. Aldrich-Blake, M.D.

Middlesex Hospital, Cleveland Street, W. Dean, Dr. H. Campbell Thomson.

St. Bartholomew's Hospital and College, West Smithfield, E.C. Dean, Dr. T. W. Shore.

St. George's Hospital, Hyde Park Corner, S.W. Dean, Dr. R. R. James.

St. Mary's Hospital, Cambridge Place, Paddington, W. Dean, Sir John Broadbent, Bart.

St. Thomas's Hospital Medical School, Albert Embankment, S.E. Dean, Dr. Edward Stainer.

University College Faculty of Medical Sciences, Gower Street, W.C. Dean, Mr. J. Herbert Parsons, F.R.C.S.

Westminster Hospital Medical School, Broad Sanctuary. Dean, Dr. S. A. Kinnier Wilson.

Dentistry.

As a profession dentistry has great attractions, especially to those who have mechanical ability. The emoluments are attractive, and there is every prospect that the demand for dentistry will increase even in face of the tendency to delegate the mechanical part to less qualified persons. So defective is the supply of qualified dentists that it is probable that some State recognition will have to be made of unregistered practitioners. The method of obtaining a registrable qualification in dentistry resembles that required for medicine and surgery. Both professions are controlled by the General Medical Council. The training of the dental student extends over a period of four years and may be entirely carried out at a recognised dental school, or it may be acquired by part training at a dental school for two or three years and an apprenticeship of two years to a qualified dentist. The curriculum of the Royal College of Surgeons of England (Queen's Square, London, W.C.), which is as follows, may be taken as an average of the requirements:

First Course.—Theoretical and practical chemistry and physics; 180 hours' lectures and practical work in chemistry and 120 hours' lectures and practical work in physics. Pass the *Preliminary Science examination* in chemistry and physics, the same as that for L.R.C.P. and M.R.C.S.

Second Course.—Two years' instruction in mechanical dentistry; lectures on dental metallurgy, with a practical course; lectures on dental mechanics, with practical work, including the manufacture and adjustment of six dentures and six crowns. Pass the *First Professional examination*—(I.) Mechanical dentistry; (II.) dental metallurgy.

Third Course.—Lectures on dental anatomy and physiology, dental histology, dental surgery, with practical dental surgery; surgery of the mouth, dental bacteriology, dental materia medica, and practical instruction in anaesthetics—these at a dental school and hospital; and the following in a medical school: Lectures on anatomy, physiology, with practical physiology; surgery and medicine. Dissections for twelve months. Practice of surgery and clinical lectures on surgery in a hospital for twelve months. Pass the *Second Professional examination*—(I.) General anatomy and physiology, dental pathology and surgery; (II.) dental anatomy and physiology, dental pathology and surgery, and practical dental surgery. Before the final subjects are entered for, the candidate must have completed the four-years' curriculum and be twenty-one years old.

Similar conditions apply to the qualifications of the following Colleges:

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—Clerk, Mr. D. L. Eadie, 50 George Square, Edinburgh.

ROYAL FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.—Address Mr. Walter Hurst, 242 St. Vincent Street, Glasgow.

ROYAL COLLEGE OF SURGEONS IN IRELAND, Stephen's Green, Dublin.

Degrees in dentistry are granted by the Universities of Birmingham, Bristol, Dublin, Leeds, Liverpool, London, and Manchester, and a licence in dental surgery, recognised as registrable, is granted by the Royal Colleges of Surgeons of England, Edinburgh, and Ireland; the Royal Faculty of Physicians and Surgeons, Glasgow; and the Universities of Birmingham, Bristol, Dublin, Durham, Leeds, Liverpool, Manchester, and St. Andrews. Instruction in dentistry is provided by all these bodies. The medical schools mentioned above under the section dealing with medicine (with the exception of Charing Cross) have dental colleges attached. There are in addition the following dental schools:

DUBLIN.—School of Dentistry, Lincoln Place. Dean, Mr. Geo. Sheppard.

EDINBURGH.—Dental Hospital and School, 31 Chambers Street. Dean, Mr. W. Guy, 11 Wemyss Place.

GLASGOW.—Dental Hospital and School, 158 Renfrew Street and 15 Dalhousie Street. Dean, Mr. W. D. Anderson.

LONDON.—National Dental Hospital, Great Portland Street, W. Dean, Mr. Sidney Spokes.—Royal Dental Hospital, Leicester Square, W.C. Dean, Mr. W. H. Dolamore.

Veterinary Surgery.

The advent of the motor-car has not seriously affected the prosperity of the veterinary profession. It appears that the growth of the newer duties of veterinary surgeons—e.g., meat inspection—has neutralised the effect of any diminution in the number of horses kept for pleasure. Veterinary surgeons have the advantage of a distinct department in the Army, and it is probable that the present war has enlarged their functions in the direction of preventing waste of horses. The Royal College of Veterinary Surgeons, Red Lion Square, London, W.C., is empowered to grant licences to practise and to exercise powers similar to those exercised in the case of medicine by the General Medical Council, except that the Royal College, unlike the G.M.C., conducts the Professional examinations. Before commencing study at one of the affiliated Colleges, the student must pass a recognised Preliminary examination.

Then after registration as a student he is ready to take up the curriculum for M.R.C.V.S., which lasts four years, with an examination at the end of each academic year. Particulars of the four Professional examinations may be obtained from Mr. Fred. Bullock, Secretary, Royal College of Veterinary Surgeons, 10 Red Lion Square, London, W.C. The subjects of the curriculum are substantially those of the Professional examinations, viz.:

First Professional Examination.—Anatomy of the domesticated animals—bones, ligaments, joints; chemistry and elementary physics; elementary zoology and botany.

Second Professional Examination.—Anatomy of the domesticated animals; histology and physiology; stable management, the manipulation of animals, and the principles of shoeing.

Third Professional Examination.—Pathology, bacteriology, and protozoology; materia medica, pharmacy, and toxicology; veterinary hygiene and dietetics.

Fourth Professional Examination.—Principles and practice of veterinary medicine and clinical medicine; principles and practice of veterinary surgery, clinical surgery, obstetrics, and shoeing; meat inspection.

Education in veterinary surgery is offered at the following Colleges, each of which is affiliated to the Royal College of Veterinary Surgeons:

DUBLIN.—*Royal Veterinary College of Ireland* (under the Department of Agriculture and Technical Instruction for Ireland), Pembroke and Shelbourne Roads, Balls Bridge. Principal, Professor A. E. Mettam, Registrar, Mr. G. E. Haines.

EDINBURGH.—*Royal (Dick) Veterinary College.* Principal, Professor O. Charnock Bradley.

GLASGOW.—*Glasgow Veterinary College,* Buccleuch Street, Garnethill. Principal, Professor J. McCall.

LONDON.—*Royal Veterinary College,* Great College Street, Camden Town, N.W. Principal and Dean, Professor Sir John McFadyean, M.B., M.R.C.V.S., etc.

Degrees in veterinary surgery are also granted by the Universities of Bristol, Edinburgh, Glasgow, Liverpool, London, and Manchester.

Science.

Chemistry is in the ascendant in this country. The recognition of chemistry as a "key" industry—essential for the independence of the nation—will ensure that in future a considerable manufacture of dyes must be carried on here. The fine chemicals used in medicine are often by-products in the manufacture of aniline dyes, so that medicine and pharmacy will benefit by the establishment of the industry on a national basis. There is a considerable demand for research, analytical, and industrial chemists which cannot be satisfied whilst the young men of the nation are fighting their country's battles; but when demobilisation takes place many thousands of candidates should be available for positions in chemical-works. We have already received many inquiries as to the course of study which will be needed, and there are signs that young pharmacists will readily prepare themselves for the new profession if the remuneration is at all promising. It may be stated at the outset that there is no legal restriction on the practice of professional or analytical chemistry, but indirectly it will be found that regulations affecting the appointment of public analysts, for example, make it necessary to hold a diploma in chemistry from a recognised body.

The recognised chemical qualification in this country is that provided by the **INSTITUTE OF CHEMISTRY**, 30 Russell Square, London, W.C.—viz., Fellow of the Institute of Chemistry (F.I.C.)—which is taken mainly by those who desire to practise as analysts. The following is an outline of the requirements of the Institute:

STUDENTSHIP.—Candidates must be at least seventeen years of age and have passed an approved Preliminary examination, and at the time of application be training at a recognised institution or under a Fellow of the Institute. Under new conditions recently created suitable qualifications are to be accepted in lieu of the entrance examination, but further requirements are needed before admission to the Fellowship of the Institute. Annual registration-fee, 5s.

INTERMEDIATE EXAMINATION.—The course of study in chemistry, physics, mathematics, and a fourth subject extends to three years, or one less if a candidate is a pupil with a F.I.C. Examination-fee, 5l. 5s.

FINAL EXAMINATION.—Includes a general knowledge of chemistry and special knowledge in one branch, besides ability to translate French and German technical literature into English. See the Institute's particulars. Examination-fee, 5l. 5s.

Further examinations are also provided—e.g., (1) Food and drugs to qualify for public analyst, and (2) biological chemistry. Fee, 5l. 5s. in each case.

Degrees in science are given by all the Universities, and have the advantage in giving the holders a wider range in obtaining positions in research and industrial chemistry. B.Sc. is, for example, given to those who have put in a curriculum of three years at the University and passed the Professional examinations provided. These are held yearly,

the subjects being according to the department of knowledge in which the degree is required. The particulars are given in the University prospectuses. The University of London grants its degree *sine curriculo*, as well as to internal students. In this University, as well as in all others, the University Matriculation examination or its equivalent has to be passed. In London the other arrangements are as follows:

A year after passing the Matriculation examination a student may enter for the *Intermediate examination* (fee, 5*l.*), taking four subjects from the following, including at least one from the first three: Pure mathematics, applied mathematics, experimental physics, chemistry, botany, zoology, geology, military science, and general physiology (internal students). The *Final examination* (fee, 5*l.*) may be taken one year after passing the Intermediate, but three years must elapse between the Matriculation and Final examinations. Three out of thirteen prescribed subjects are to be taken in the Pass Final examination; Honours candidates take only one subject (of a much higher standard) along with an appropriate subsidiary subject.

The London degree is still the most popular, but those who have the opportunity of attending the Science classes of any other University should get their own University's Science degree.

Schools of Science exist in all large towns, those in cities which are classed as Local Colleges by the Board of Education offering the most complete educational facilities. In London the chief institutions are:

IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY, South Kensington, S.W.
BATTERSEA POLYTECHNIC, Battersea Park Road, S.W.
CITY OF LONDON COLLEGE, White Street, Moorfields, E.C.
EAST LONDON COLLEGE, Mile End Road, E.
KING'S COLLEGE, Strand, W.C.
NORTHERN POLYTECHNIC INSTITUTE, Holloway, N.
SIR JOHN CASS TECHNICAL INSTITUTE, Jewry Street, Aldgate, E.C.
SOUTH-WESTERN POLYTECHNIC, Manresa Road, Chelsea, S.W.
TECHNICAL COLLEGE, Leonard Street, Finsbury, E.C.
UNIVERSITY COLLEGE, Gower Street, W.C.
WEST HAM TECHNICAL INSTITUTE, Romford Road, E.

Information regarding the courses of study can be obtained by addressing the Secretaries of the various institutions referred to above.

Optical Diplomas.

The two branches of optics—manufacturing and ophthalmic—are of interest to the drug-trade, although it is mainly to eyesight-testing and spectacle-making that chemists have devoted their attention. The new optical department at the Imperial College of Science and Technology will exercise an important part in developing and maintaining the manufacture of optical instruments in this country. Dependence upon Germany in this as in other manufactures is a thing of the past, and the efforts to win the world's trade in scientific instruments should spur our country to see that the industry is on a proper basis. The production of suitable glass has made great progress, and the establishment of several technical societies in connection with the industry is a healthy sign. Apart from microscopes and photographic apparatus, the interests of chemists are chiefly centred in ophthalmic optics, and a great number have obtained the optical diplomas granted by the following bodies:

THE SPECTACLE-MAKERS' COMPANY, 11 Temple House, Temple Avenue, London, E.C. Write to the Acting Clerk.
THE BRITISH OPTICAL ASSOCIATION, Clifford's Inn, London, E.C. Secretary, Mr. J. H. Sutcliffe.

The prospectuses of these institutions can be obtained on application.

OPTICAL INSTRUCTION.

The principal schools where instruction in ophthalmic optics can be obtained are:

THE BRITISH OPTICAL INSTITUTE LTD., Fern Lodge, 20a Grove Road, Brixton, London, S.W. Principal, Dr. Max Coque, B.Sc.
THE COLLEGE OF OPTICS, 12 Renfield Street, Glasgow. Principal, Mr. T. S. Baird.
GLASGOW SCHOOL OF OPTICS, 180 West Regent Street.
MR. A. E. GREY, 15 Spencer Street, Clerkenwell, London, E.C.
MR. LIONEL LAURANCE, Institute of Optics, Temple House, Temple Avenue, London, E.C.
THE NORTHAMPTON POLYTECHNIC INSTITUTE, St. John Street, Clerkenwell, London, E.C.
MR. J. G. WALLBRIDGE, School of Optics, 227 Kensington, Liverpool.

Full information regarding time-tables and fees is obtainable on application.

The Editor will be pleased at any time to supplement the information on educational matters dealt with in this and the previous issue, either by post or through the columns of THE CHEMIST AND DRUGGIST.

Trade Report.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Quantities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. As a result of the War wholesale houses have had to contend with many fresh difficulties, some of which have involved greatly increased expenses. Shortage of labour with higher wages (equal to almost double pre-war rates) has a direct effect upon values of goods; as also have railway carriage, freights, cartage, and other charges. The foregoing and other incidental outlays prevent retail buyers purchasing at the market prices quoted here.

42 Cannon Street, E.C. 4, August 22, 3 p.m.

THE prolonged fine weather accounts for many absentees from the markets, and thin attendances have been the rule; consequently business has been of small dimensions. There has been a revival of speculative interest in Japanese products like menthol and mint oil, and the former has had a rapid advance with a good business in progress. Pepper and pimento have again been driven to higher levels by speculation, so much so as to attract the lay Press. Coriander-seed continues in good demand; fenugreek is much dearer; and cumin is firmer. Pharmaceutical chemicals have with few exceptions been quiet and prices of a few are irregular. Aspirin is substantially dearer, and benzoic acid is also scarce and higher. Supplies of Government acquired potash bromide at the low prices remain quite sufficient for home consumption, dealers being excluded from this market so far as regards these imports. Creosote carbonate is dearer. Acetanilide and barbitone are rather easier, while paraldehyde is firmer. Further imports of saccharin have now been officially banned by the Royal Commission on the Sugar Supply; consequently prices are rising in the uncontrolled market. Milk-sugar supplies are now far more plentiful; attention is called to the official notice on the next page.

Higher	Firmer	Easier
Aspirin	Citric acid	Acetanilide
Benzoic acid	Cumin-seed	Barbitone
Cloves	Opium	Chamomiles
Creosote carbonate	Paraldehyde	Coumarin
Menthol	Saccharin	Potash sulpho- guaiaacolate
Mint oil (Jap.)		
Pepper		
Pimento		
Petroleum jelly		

The Drug Sales will be held next Thursday, August 29.

Cablegram.

NEW YORK, August 21.—Business is fair. Peppermint oil in tins has advanced by \$1.15 per lb. to \$4.50. Senega is also dearer at \$1.5 and cascara sagrada at 18c. Rochelle salts is higher at 46½c. and seidnitz mixture at 36c. per lb. is also dearer. Balsam Peru is lower at \$3.35 per lb.

ACETANILIDE has sellers in quantity at 6s. per lb. net.

ALOES.—The exports from the Union of South Africa during May 1918 amounted to 30 lb. (1*l.*) against *nil* in May 1917. For the five months ending May 31, 1918, the exports were 155,180 lb. (1,331*l.*) against 113,473 lb. (1,063*l.*) for the corresponding period of 1917.

ANISE OIL, STAR, is steady, with spot sales of "Red Ship" brand at 5s. per lb., and for shipment 4s. 9d. c.i.f. is quoted.

ANTIMONY.—There is very little interest here, although a few small lots of foreign regulus were picked up at concessions down to 75*l.*, but holders ask up to 78*l.* Crude seems extremely scarce on the spot, since it is a considerable time since the last arrivals took place against old contracts. It is rather doubtful whether parcels could be secured at 50*l.* The f.o.b. transaction referred to in our previous issue was connected with war work.

ARSENIC.—If anything the market is rather quieter, the demand being slow, but there is not a great deal offering, and the undertone is firm at about previous quotations,

ranging from 100*l.* to 105*l.* per ton delivered London. Possibly the market may remain stationary for a while pending further imports, but it is obvious that buyers continue cautious at the high prices.

ASPIRIN has had a sharp advance, and stocks in dealers' hands are quite small, from 12*s.* 9*d.* being quoted in cases up to 13*s.* 3*d.* in small parcels.

BARBITONE is offered at the easier rate of 100*s.* per lb. on the spot.

BENZOIC ACID.—There is a spot scarcity, and importers are asking the higher prices of from 19*s.* 3*d.* to 19*s.* 6*d.* per lb. net.

BROMIDES.—In further reference to last week's paragraph on potassium bromide, it should be clearly understood that the English makers have still a good quantity of the stock imported by the Government for the supply to regular consumers only; and, as no export trading is allowed, the supplies for home-consumption are likely to last for some time, and there is always the possibility of these being replenished by the Government before exhaustion. None of these cheap supplies is, of course, available in the "open" market, where dealers ask 9*s.* for crystals.

BUCHU remains in very limited supply, with 6*s.* 6*d.* asked for fair round leaf, and for ovals 6*s.* has been paid. There were no exports from the Union of South Africa during May 1918, similar conditions prevailing in May 1917. During the five months ending May 31, 1918, the exports were 59,683 lb. (9,871*l.*) against 89,314 lb. (14,622*l.*) in the corresponding period of 1917.

CADMIUM being used as a substitute in certain directions, there is a steady outlet and the tone is firm at about 8*s.* per lb.

CAMPHOR (REFINED) is firm, with spot sales of Japanese 2½-lb. slabs at from 4*s.* 7*d.* to 4*s.* 8*d.*, and ¼-oz. tablets are quoted about 6*s.* to 6*s.* 1*d.*

CASCARA SAGRADA.—Small spot sales from dealers' hands have been made at 165*s.* per cwt.

CASSIA FISTULA.—West Indian has been sold at 150*s.* per cwt. on the spot from dealers' hands.

CASSIA OIL is firm, with 80 to 85 per cent. c.a. offering at 7*s.* 9*d.* on the spot, and at 8*s.* 6*d.* c.i.f. to arrive.

CHAMOMILES are offering at rather easier prices, including new French at 235*s.* per cwt. net and gross for net on spot, and for last year's crop 330*s.* is quoted.

CHILLIES.—There are sellers of Japanese at 95*s.* per cwt. on the spot.

CITRIC ACID has been in fair demand; business has been done at from 3*s.* 4*d.* to 3*s.* 6*d.* per lb., the latter being the quotation at the close.

CITRONELLA OIL.—Ceylon in drums is steady on the spot at 3*s.* 6*d.* and Java at 5*s.* 6*d.* per lb.

CLOVES.—Zanzibar are again slightly higher, with spot sales up to 3*s.* 2*d.*; closing sellers at 3*s.* 3*d.*

COPPER SULPHATE is again quieter, the f.o.b. price being chiefly nominal at 65*l.* to 65*l.* 10*s.*, less 5 per cent. The "season" is now practically over for export.

CORIANDER-SEED continues in good demand, with sales of old-crop Morocco at 62*s.* 6*d.* and of new crop at 67*s.* 6*d.* per cwt.

COUTMARIN.—Spot sellers quote from 164*s.* to 170*s.* for 100 per cent. and 165*s.* for shipment.

CREOSOTE.—Beechwood can be had at 20*s.* per lb. on the spot. Carbonate is scarce and dearer, importers asking 85*s.* net.

CUMIN-SEED is firmer, with sales of good sifted Morocco at 55*s.* to 57*s.* 6*d.* per cwt.; and 60*s.* is now required.

ERGOT remains firm, with sales of Spanish on the spot at from 5*s.* to 5*s.* 3*d.* per lb. as to quality.

FARINA is steady, with Japanese offering on the spot at 80*s.*, and sales include August-September shipment at 75*s.* to 76*s.* per cwt. c.i.f.

FENUGREEK-SEED is much dearer. New-crop Morocco on passage has been sold at 50*s.* per cwt. c.i.f. terms, and old crop on the spot at 50*s.* per cwt.

GINGERS remain very flat, the sales including Japanese at 140*s.* per cwt. on the spot.

HELIOTROPIN on the spot is offered at 36*s.* 6*d.*, and sellers ask 35*s.* for parcels afloat.

HONEY.—The Food Ministry appear to have a rationing scheme in view according to reports in the newspaper Press, but it may not be in operation for several months. Meanwhile both prices and the demand are well sustained, the sales including Jamaica in quantity at 190*s.*, and pale straw set Cuban at 192*s.* 6*d.* down to 187*s.* 6*d.* for ordinary; for Australian from 190*s.* to 192*s.* 6*d.* has been paid, and dull set Chilean is quoted at 190*s.*

LEMONGRASS OIL, containing 70 to 75 per cent. citral, is offered at 7*d.* per oz. on the spot.

LIME OIL.—West Indian hand-pressed is offered at 20*s.* and distilled at 6*s.* 9*d.*

LIQORICE JUICE.—Spot stocks in London and the provinces seem sufficient for the demand, with finest Italian block juice offering at 330*s.* per cwt. in London.

MENTHOL has been taken in hand by Mincing Lane operators, and a good business has been done at prices varying from about 14*s.* to 15*s.* 9*d.* for Kobayashi-Suzuki on the spot; the sales to arrive include September-November shipment at from 13*s.* 10½*d.* to 14*s.* c.i.f.

MILK-SUGAR.—The Ministry of Food announces that under the Milk Products (Returns) Order, 1918, every person who imported sugar of milk into Great Britain between January 1, 1917, and July 31, 1918, must before September 7 furnish a return, on a form obtainable from the Secretary, Ministry of Food (Milk Section), New County Hall, London, S.E. 1, showing the amount imported by him (a) in the year 1917; (b) between January 1 and July 31, 1918, and declaring at the same time the country or countries of origin. They must also state the amount of stock that they now hold in Great Britain and the quantity they have bought abroad which will be in transit or awaiting shipment on August 24 next. There are still sellers of American and/or Dutch to actual consumers at 5*s.* per lb., with some dealers asking 5*s.* 10*d.* to 6*s.*; much better supplies are available on the spot.

MINT OIL.—Japanese dementholised has been in good demand at from 4*s.* 3*d.* to 4*s.* 6*d.* per lb. on the spot, market closing firm with buyers at 4*s.* 3*d.* for Kobayashi-Suzuki; to arrive 4*s.* c.i.f. has been paid.

The exports from Japan during May amounted to 19,787 kin, valued at 42,345 yen. During the five months ended May 31 the exports were as follows:

	1916	1917	1918
Kin	198,540	71,766	162,377
Yen	457,670	157,013	29,504

OPIMUM is firmer, with spot sales of Persian 10-per-cent. at 60*s.* per lb.

PARALDEHYDE is firmer at from 10*s.* 6*d.* to 11*s.* per lb. on the spot as to quantity.

PEPPERMINT OIL.—Our New York cable announces a sharp advance in tin oil to \$4.50 per lb.; on the spot sales have been made at from 22*s.* 6*d.* to 25*s.*

PEPPERS are again dearer, but quieter. Black Singapore has been sold on the spot at from 2*s.* 2*d.* to 2*s.* 3½*d.* for fair; Tellicherry at 2*s.* 4*d.* to 2*s.* 4½*d.*; and Aleppy at 2*s.* 3½*d.* to 2*s.* 4*d.* White is also dearer, fair Singapore selling at up to 3*s.* 7*d.* and white Muntok at 3*s.* 7½*d.*

PEPSINS have shown an advancing tendency of late, the value of B.P. powder (1:3000) and (1:2500) being about 38*s.* 6*d.* per lb. net.

PETROLEUM JELLY has shown a rising tendency for some time past, up to 200*s.* per cwt. having been paid for good white and 210*s.* asked; pale amber yellow can be had at 85*s.*

PHENACETIN.—At the moment the market is lifeless, the undertone continuing easy at from 19*s.* to 20*s.* per lb. on the spot.

PIMENTO shows a further advance, spot sales having been made up to 9*d.* and subsequently at 8½*d.* to 8¾*d.* per lb.

POTASH BICARBONATE of B.P. quality in cases can be had at 1*s.* 6*d.* per lb. for granular or crystals.

POTASH IODIDE.—The exports from Japan during May amounted to 21,266 kin, valued at 136,328 yen, and during the five months ended May 31 they were as follows:

	1916	1917	1918
Kin	77,100	58,472	86,917
Yen	574,163	367,167	534,032

Of crude iodine the exports in May were 11,838 kin, valued at 64,032 yen, and during the five months of the past three years the exports were:

	1916	1917	1918
Kin	170	11,521	37,165
Yen	722	98,640	220,584

POTASH PERMANGANATE has met with more demand of late, spot sellers asking from 12*s.* 9*d.* to 13*s.* 3*d.* per lb.

QUICKSILVER.—There is not much change in the position. A close price against a class A certificate is 22*l.* per bottle, but there is apparently very little to be got at present except for essential needs, hence one hears less of the extreme prices that were paid for some time past for small lots for industrial use. Current quotations for fair lots might be called 22*l.* to 23*l.* per bottle.

SACCHARIN.—The position in regard to importation is referred to on p. 44. There is still a good demand for

uncontrolled saccharin, with sales of so-called "insoluble" 550 pure from importers at from 260s. to 265s. per lb., duty unpaid, equal to 392s. to 397s. duty paid; and in other directions from 400s. to 410s. has been paid.

SERPENTARY.—Spot holders ask 3s. 6d. per lb. net.

SILVER NUCLEINATE is very scarce, and appears to be practically unobtainable in the usual channels.

SPIKE-LAVENDER OIL of new crop in drums is offered at 3s. 2d. per lb. net.

TAMARINDS.—Sales of West Indian have been made at 140s. per cwt. on the spot, duty paid.

THYMOL can be had at from 43s. to 45s. per lb. as to quantity on the spot.

TURPENTINE.—Although a close control is exercised over the deliveries, the position has become tighter lately as indicated by the steady encroachments upon old stocks, while the receipts continue very small. The stock of American spirit is not even one-fourth it was a year ago, although the deliveries so far this year are at about 16,000 barrels, showing a deficit of some 23,000 barrels compared with the same period last year. For spot parcels 120s. is quoted to permit-holders.

VANILLIN varies in price in dealers' hands at from 66s. 6d. to 68s. per lb. as to seller.

WILD-CHERRY BARK, ex a parcel just landing, is offered at 1s. 10d. per lb., while another holder asks 2s. 3d. to 2s. 4d.

Sicilian Lemon Oil.

In the course of a circular-letter issued by a Sicilian firm of exporters, dated August 12, it is stated that "the trials which were carried out by the Italian Government, with a view to applying lemon oil as a substitute for oil of turpentine, have given excellent results. The Government have therefore wisely decided to use the large existing stocks of lemon oil in place of turpentine oil, which had to be imported from abroad. Decrees have been published which, while authorising the Ministry of Commerce to requisition the quantities of lemon oil considered necessary, obliges the pressers, holders, and exporters to declare their existing stocks, and establishes the maximum price at which lemon oil must be sold to the Ministry of Commerce, provided, of course, that it has the prescribed physical data. This action by the Government will have—as in fact it has already had—an immediate reaction upon the course of business and upon prices. The first and most important effect of this step will certainly be beneficial to national economy by putting into use, giving value to, and causing the liquidation of a very heavy stock which was weighing in a damaging manner upon the market and aggravating the crisis in the lemon-growing industry. Although so far there are no restrictions on exportation, it is evident that shipments will be handicapped by the mere fact of the existing requisition and registration of stocks. It is already known that the absorption of the article by the Government for State purposes will be very important, and this has already produced an uncertain market and probably an advance in prices for export."

Dutch E.I. Government Cinchona Plantations.

The recently published report on these gardens states that on the whole weather conditions were favourable in 1916 for nurseries and young plantations, but heavy rain at the beginning of the year, followed by long drought, was not advantageous for the established plantations. At Kawah Tjiwide over two bouws of robusta trees, on rather poor ground, and which had been affected by night frosts, were cleared, while over one bouw of scrub was cleared and planted with ledger grafts. No new land was planted up in the other gardens during the year. The area under cultivation at the beginning of 1917 was over 1,509 bouws, against over 1,510 at the beginning of 1916. At the end of 1916 the stock of trees in the open was 9,587,500, compared with 8,926,000 at the end of 1915. The increase in the number of plants is due to the fact that favourable weather conditions at the beginning of the year made it possible to devote much of the labour available to the working of the soil, so that when the monsoon came on only the older plantations had been harvested by thinning and uprooting. The number of plants in the nurseries at the end of 1916 was about 4,429,000, consisting of the following kinds in various stages of development: ledger, 909,000; succirubra, 1,919,500; hybride, 1,327,000; and robusta, 273,000. Two sales of plants and seed were held during the year, at which 20,848d. were realised, against 27,833d. in 1915. Much of the expense of upkeep of the gardens is due to labour required to keep down weeds and to check the spread of disease. An effort is now being made by deep soil working

to exterminate weeds and grasses, with a view to the reduction of the labour bill in the future. As regards disease, djamoer oepas was bad at Rioenggoeng, being favoured by heavy rain followed by drought. Root-disease was troublesome, as usual, on the badly drained soils. Stem-diseases gave some trouble on certain types of grafts, and helopeltis appeared in some nurseries near the roads. The harvest of bark in 1916 amounted to 901,361 kilos., of which 650,124 kilos. were shipped to Holland and 250,642 kilos. were sent to the Bandoeng quinine factory. This harvest was made up as follows: ledger and hybrid bark, 739,492 kilos. (equal to 47,093 kilos. of quinine sulphate), and succirubra and robusta bark, 161,869 kilos., containing on the average the equivalent of 2.64 per cent. of quinine sulphate. The harvest was chiefly procured by thinning out and cutting off, but there was a good proportion of bark from uprooted diseased trees.

Mysore Sandalwood.

In December 1917 the Committee of the Upper India Chamber of Commerce were invited to consider a memorial which had been submitted to the Lieutenant-Governor of the United Provinces by the perfume manufacturers of Kanauj, protesting against the prohibition by the Mysore Government of the sale by auction of sandalwood from the Mysore forests and the reservation of the whole of the Mysore sandalwood for the manufacture of oil in the Stato factory at Bangalore. The memorial also conveyed the apprehension that Coorg and Coimbatore sandalwood was about to be reserved for the Mysore State by the Madras Government. The question was referred to the Chamber's representatives on the U.P. Board of Industries, who, on inquiry, advised the Committee that the matter was not one which it would be advisable for the Chamber to take up. It appeared that sandalwood oil could not be as economically extracted in Kanauj as in Mysore. The scent-makers could still obtain oil from Mysore and wood from Coorg and Coimbatore. In any case, there could not be any interference with the internal affairs of a native State. The Committee accordingly decided to take no action.

Arrivals of Chemicals, Drugs, etc.

The following arrivals have taken place at the Ports of London and Liverpool:

<i>To London</i> (August 10 to 16).					
Chemical products, etc., unrated, 19 pkgs. 19 cs.	Argol, 669 bgs. Arsenic, 98 cwt. 140 cs.	Benzaldehyde, 1 cs. Bromides: potash, 50 cs. Calcium tartrate, 116 bgs. Chlorophyll, 4 cs. Chromic acid, 1 cs. Cream of tartar, 10 brls. 28 cks. 44 pkgs. Formaldehyde, 25 brls. Hexamine, 20 drms. Hydroquinone, 11 cs. 1 x $\frac{1}{2}$ brl. Milk sugar, 200 cs. Oxalic acid, 60 pkgs. Potash carbonate, 300 cks. Potash iodide, 10 cs. Salicylic acid, 70 brls. Saltpetre, 12,440 cwt. Soda, unrated, 19 cwt. Tartaric acid, 20 brls. Wine lees, 436 hgs. Drugs, etc., unrated, 60l.; herbs, dried, 27 brls. Aconite-root, 24 hgs. Anise oil, star, 50 cs. Camphor, 370 cs. Ergot, 17 sacks Insect-powder, 15 cs. Menthol, 407 cs. Nux vomica, 1,866 pockets Senna, 125 brls. Turmeric, 306 hgs. Dyestuffs, tanning ma- terials, etc., un- rated, 352 brls. 58 pkgs.; carmine of cochineal, 2 cs.;	cutch, 300 bxs.; indigo, 178 cts. 48 cs. 25 bxs.; myro- balans, 22,595 poc- kets 625 bgs.; tanners' bark, 1,743 tons Fullers' earth, 4 tons Celatin, 1,120l. Perfumery, unrated, 86l.; toilet-pow- der, 708l. Plumbago, 1,929 hgs. 919 brls. 90 cks. Soap, toilet, 1,779l. Starches (cwt.): dex- trin, 1,020; farina, 13,230; potato, 45,867; rice, 500; wheat, 161 Talc, 825l. Wax, bees', 70 bgs. Wax, mineral, 218 hgs. Wax, vegetable, 946 cs. Wax, hard sperm, 375 hgs.	Potash chlorate, 100 cks. Safrol, 14 cs. Salol, 113 kgs. Soda nitrate, 137,798 bgs. Soda perborate, 326 brls. Tannic acid, 20 brls. Tartaric acid, 40 brls. Thorium nitrate, 50 cs. Drugs, etc.: serums, 85l. and 5 cs.; vaccines, 3 cs.; herbal tea, 35 cs. Balsam peru, 5 cs. Calabar beans, 5 hgs. Damiana-leaves, 22 bgs. Ergot, 9 hgs. Manna, 4 cs. Nux vomica, 2,679l. and 1,000 pockets Dyestuffs, tanning materials, etc.: bark extract, 60 brls.; cutch, 68 bxs.; logwood ext., 780 cks.; myro- balans, 2,789 poc- kets; crushed, 2,000 pockets; orchilla-weed, 67 brls.; tanning ext., 707 brls. Plumbago, 573l. Soapstone, 1,000 hgs. Starches: farina, 2,336 pkgs.; mandioca, 350 bgs.; potato, 884 hgs. Wax, bees', 30 sks. 18 bgs. Wax, carnauba, 1,491 bgs. Wax, paraffin, 1,388 brls. 3,751 bgs. 1,407 cs.; scale, 2,207 brls. Zinc oxide, 2,270 brls.	

Correspondence

"Lest we Forget."

SIR,—I thank "Vacationist" for his good-humoured reply to me. But can it be that he has forgotten that the object of war is peace and not *post-bellum* hostilities; that when we have defeated the enemy in the field it will not be necessary, nor would it become us, to go on deliberately kicking him for an indefinite period afterwards; that, despite the loathsome devilry of the Hun, we must take care not to compass our own moral deterioration by allowing our foreign policy to be dominated by hate or vengeance? If your contributor can make good his paradox of the compatibility of a *post-bellum* economic war with a League of Nations I am prepared to side with him. Whether, or in what degree, the German scientific mind is original or otherwise is not relevant in this connection, though it is absurd to suppose that science can ever ignore German research. The war, fortunately or unfortunately, has nothing to do with that. At the conclusion of hostilities there is here to be felt, and rightly, the bitterest abhorrence of German crimes, and hence of the Germans themselves; but whether it would be prudent, practicable, and just to organise and exploit such rational feeling on the lines of an economic war is, at least, highly doubtful.

Yours faithfully,

R. CECIL OWEN.

Chester.

SIR,—I have read with great interest and pleasure your opportune article "Lest we Forget" (*C. & D.*, August 3, p. 42). I should think the vast majority of chemists will be in complete agreement with the spirit of your article. Of course, "black sheep" are to be found in every flock. I would ask those chemists who are willing to forgive their "Hun friends" for all the devilry they have instigated against civilisation whether any of their friends or relatives have fallen victims to the poison-gas of the Hun? If so, can they forget the torture and the suffering of those afflicted? I can scarcely believe that anyone who has had this brutality of the Hun visited on his own friends could ever think of treating the Hun as a "white man" again. Besides, "blood is thicker than water," and we ought to place our own kinsmen who have suffered before the German beasts whose sole ambition was to wipe England and everything English out of existence. Our manufacturers have done great things since this terrible war broke out, and let us support them and do our utmost to bring pressure on the Government to support them. If our manufacturers show the medical profession that they are in a position to produce chemicals that are equal to or better than the German articles, and so get them prescribed, then chemists will not be obliged to stock the products of the German poison-gas factories. Shortly after the outbreak of the war one well-known manufacturing house had leaflets printed giving a list of German chemicals with the British equivalent in the market at the time. They sent these to their customers. I supplied these leaflets to all the local medical men, and the result is that very rarely is the German article ordered. I have not heard of any complaints about the British article not being equal to the German of the pre-war time, and I have a very fair opportunity of knowing, being engaged principally in a dispensing business. Our Societies and local Associations ought to take the matter up, and make a united and determined effort to encourage and stand by those manufacturing houses who filled the breach at the critical time, when our nation was threatened with extinction by the treacherous Hun. The German has by his acts made himself an "outcast," and as such he ought to be treated.

Yours faithfully,

M.P.S.I. (156/32.)

The Title "Chemist."

SIR,—While in a chemist's shop at Matlock this week, two ladies entered and in subdued tones asked, "What time is the Palmist here, please?" The proprietor of the establishment asked them to repeat their request, and was then still at a loss to know their requirement, when they volunteered the information that they had seen a card in the window. The card turned out to be one bearing the name "Pharmacist," on explanation of the meaning of which they saw the humour of the situation.

Yours faithfully,

H. T. (254/4.)

SIR,—An article on "Chemist" *versus* "Pharmacist," which appeared in the "Pharmaceutical Journal," August 10, contains several statements calling for correction. It begins by deprecating the attempt to "revive" the title "chemist" in preference to "pharmacist." "Chemist," of course, has never become obsolete, and to talk of reviving it is absurd. It is, however, significant of the attitude of some of our leaders, and is probably meant to prepare the way for its abandonment. Be this as it may, the article in question expresses a strong preference for "pharmacist," and even suggests "apothecary" and "pottinger" (by this latter I presume that "pottingar" is meant), as having "a much higher antiquity and usage" than "chemist." The adoption of these would be a revival indeed! Regret is expressed, or at least implied, that the title "pharmacist" was so long withheld from the rank-and-file, but the reason given for this is disingenuous. We are told that in 1898 the way to the concession was barred by the Act of 1868. But so it was too in 1908. The real bar was the jealousy of pharmaceutical chemists, which had to some extent given way to commonsense in 1908. The concession itself is characterised as a "magnanimous" giving up of "statutory and moral rights." A statutory right was certainly given up, but not a moral one; and the act was one of interested policy, not of magnanimity. It is a pity that commonsense did not go a little further and concede to us all the title "pharmaceutical chemist," as well as its equivalent, "pharmacist," thus securing to us the one we most desiderate as being the most accurate and honourable of all, to which we have a perfectly valid moral right, and which no outside body could dispute with us.

Yours truly,

"1868," (154/91.)

SIR,—Every few years that pass carry with them one or more of our cherished and hard-won privileges. It is now suggested by the Institute of Chemistry that we quietly waive our right to the title of "chemist" unless accompanied by a pharmaceutical adjective of quality.

"Another and another cup to drown"

The memory of this impertinence."

Are we to understand that a Fellow of the Institute is handicapped professionally so long as a pharmacist remains a "chemist"? I think not. We do not enter into competition with him for any public office. The limitations of our qualifications are sufficient safeguard to preclude the element of professional jealousy or rivalry. Why, then, seek to deprive us of what is indubitably ours; and the only title recognised and understood of the British public? There is no equivalent for the designation "chemist." Yet am I persuaded that our Society will show but a flaccid front to those who wish to claim it when the time appears ripe for its seizure. I appeal to every brother pharmacist to rouse himself to what is threatened—imminent, it may be. Permit me to suggest that every member of the Pharmaceutical Society who feels disposed to resent the very cavalier treatment of his claim to the title in dispute sends just a postcard to Bloomsbury Square, briefly asking the powers that be strenuously to oppose the demands of the Institute of Chemistry; to refuse, in short, to enter into any discussion of a subject that has for its object the passing of the "chemist" in pharmacy.—Yours truly,

Bristol.

A. G. FOSTER.

Pharmacy of 1868.

SIR,—The Pharmacy Act, 1868, as you remind us, celebrates its jubilee this month, and the circumstance is of interest to me because early in that year I entered the trade, signing indentures with Joseph Wright at Great Yarmouth. A premium was usual in those days, but did not save the apprentice from menial labour. My own entry was coincident with the dismissal of the errand-boy, whose duties I took over. I am not complaining that I had to do practically all the work that falls to "the boy." Many men would be the better for similar experience. For my own part, I have never had to be taught cleanliness, order, and method, and would at all times rather do the work myself than labour amidst untidy and badly kept surroundings. The year 1868 found Yarmouth with a curious lot of chemists of the old-fashioned sort. I often lose myself in wondering whatever kind and quantity of trade they could have done. There was a Mr. Silver close to Wright's—a corner shop, just big enough to swing a cat in. There was another in Broad Row—Mr. Stagg's. *Per contra*, there were several rather fine places in the Market Place. Nat Goggs had a really handsome pharmacy, something like Fitzhugh & Carr's, Nottingham. Steward's is still there, the sole survivor of four along this route. Owles & Son, on the Hall Quay, were in the premier rank; certainly the shop was handsomely designed and beautifully kept by the "elbow grease" of the two apprentices, old schoolfellows of mine. I used to go round that

way on Friday evenings now and then to see them hard at it. There was a fine "classy" looking pharmacy in the Camperdown district—I have forgotten the name, but the shop was quite of the West-end style—a private house of the best kind converted to pharmacy uses, with nothing but a big red lamp to denote the fact. I have, of course, long forgotten names and persons, but I remember a tall, lanky lad who was an apprentice there, for I saw him one Saturday in the Market Place. Round his neck was a cord sustaining an open basket, in which, on a clean white napkin, were displayed "samples of the firm's specialities." I stopped to ask whether trade was brisk, but he was not communicative; indeed, he was always rather shy of me—why I cannot say. The late Mr. William Sheppard Poll was the most notable of Yarmouth pharmacists; he was certainly my friend for a good many years, and in return for certain small services gave me lessons in pharmacy and materia medica, botany, etc. After 1868 several of the old shops gradually closed up. Death and removals, the want of qualification, and so on, one supposes, had to do with this. Trade at the period could have been of no great volume, even in the summer months. At Gorleston, King held sway for many years, and I fancy that for years he must have done well. Wright's shop, close to the old gaol, was always smartly kept; and we did some trade, too—mostly dental and prescribing. Copaiba mixtures and cubeb-paste were in constant requisition. Joseph Wright was a noted prescriber, and the side door let in plenty of seafaring gentry who called for advice and physic. The Pharmacopoeia of 1867 shows pretty well what pharmacy was in those days. There was certainly a good deal of loose work. It is notorious that nearly every man had his own way of making laudanum, to mention one important item. In our case a weighed mass of opium was put into a wide-mouthed jar and boiling water poured over it. It was then my duty to soften and stir this up with a pestle occasionally during several weeks. Adjudged to have macerated long enough, the liquid was poured off, water and spirit added to a certain quantity. The marc was then handed to Mr. Poll, who no doubt found it well worth having. There was always work to be done—pills and children's powders, at the least, being in constant demand, and the pills always had to be made, and the apprentice had to make them. There was a big jar containing lumps of pill-mass, very hard and stony, which seemed to be quite inexhaustible. Nowadays I find that apprentices have scarcely strength enough for a normal pil rhei co. mass. The only occasion of Joe Wright buying pills was when Cox's coated pills first appeared: Joseph bought one gross of pil. rhei co. Mr. Wright was a notable dental practitioner. "Teeth extracted on a new principle, with as little pain as possible." This printed notice used to bring sufferers up rather freely, and as I was often required to assist by holding their heads, I saw plenty of the "new principle," and may say at once that it was rather of the brutal order. I should imagine that the Act of 1868 dealt very fairly with existing conditions. With the aid of a friendly doctor one could, if one would, practise some evasions; papers were filled in and signed and passed through without much trouble, and any loose ends were afterwards taken up by the "Modified exam." of the Pharmaceutical Society. In comparison with the Dental Act, 1878, I think the Pharmacy Act was pretty well and fairly done. It is no part of my design to write of events following these Acts. There was a long period of depression and a revival, for which chemists for the most part were badly prepared. Many, like myself, spent years in West-end and classic pharmacies that would have been better devoted to studying "the trade" of a chemist in less exalted places.

Sherwood, Nottingham.

Yours truly,

J. PIKE,

Elliman's Embroglio.

SIR,—I quite agree with Messrs. Francis and Ridyard and the attitude generally adopted by the trade *re* Elliman & Co. In my opinion the time was never more opportune than the present to clear out all non-paying patents. I am not a believer in long-winded arguments or a wait-and-see policy while the intrinsic value of a sovereign remains at 3s. or less; but the fact is, our working expenses are about double what they were three or four years ago: everything appears to bear the excelsior brand, and no sane man can in these days continue to retail 2s. 9d. lines at 2s. 5d., which cost 28s. per dozen with other patents in proportion. Every patent should show a living profit after deducting overhead charges: if it does not, then refuse to handle it. My honest conviction is that the public is always prepared to pay the advertised price of any article, providing it is not messed about with half-a-dozen prices at half-a-dozen different shops. I remember not very long ago spending two days with the auditor of my company care-

fully compiling a profit-and-loss account on a twelvemonth's sales of patents. The result was staggering. We rooted out the stuff on which we lost money, and then for a few weeks lived in a state of anticipatory nightmare wondering how much the business would suffer. But nothing happened.

My advice to the craft is: Consolidate your ranks. Close up the gaps. Demand a living wage, and make every article you handle show you, not a gross, but a net profit. Any ordinary trades union would settle the thing off-hand.

Faithfully yours,

Droylsden.

CHARLES H. GRIFFITHS.

Collecting Income-tax.

SIR,—While the country is waiting for Committees to report on new methods of taxation, and letting valuable time slip by, cannot something be done to improve the method of collection of the present taxes? Income-tax is now payable by a large number of industrial workers, and the assessment and collection entails a tremendous amount of work. Might I suggest a means be devised to employers to deduct income-tax from earnings when paying wages or salaries, similar to the practice in the Civil Service, to be paid into the Treasury within a short stipulated period, or by the purchase of stamps? This would facilitate collection, it would prevent evasion, and it would provide the Treasury with cash continuously. As income-tax for the year ending April 5 need not be paid in full until the following July, the saving in interest alone would probably amount to many millions. It would also be convenient to a great number of income-tax payers to have it deducted in small amounts rather than a heavy claim at the end of the year, causing them mental anxiety and the Revenue authorities considerable trouble to collect. The difficulties with regard to abatements could be overcome in most cases by the usual return being made and the Surveyor of Taxes certifying the amount of duty payable, although possibly it would be preferable for a graduated tax to be collected on all incomes from employer and from employé by the same machinery, as is used for National Insurance, and eliminate the excess-profits duty payable by the employer, which, in its present form, is likely to restrict initiative and endeavour on the part of the capitalist.—Yours very truly,

G. HAVINDEN,

Managing Director, The Watford
Manufacturing Co., Ltd.

Watford.

Insurance Dispensing Payments.

SIR,—The report of the Insurance Committee for the county of Surrey for 1917 is now to hand, and I would like to draw attention to the following: The average cost per insured person is 12.97d., it is therefore evident that the doctors get as bonus the whole floating sixpence, except what the Government deduct as discount for cash. There is then a balance of 5.03d. per insured person. The average number of insured persons is given as 145,649, and the number of prescriptions as 308,088. It is therefore equally evident that as far as Surrey is concerned we could have had 1d. extra per prescription, and a considerable balance would still be left; in fact, 2d. per prescription extra would not absorb it all. I may say that prescription in the report means items on a form, and not the form itself. I cannot say anything about other counties, but it is evident that a very bad bargain was made as far as Surrey is concerned.

Cobham.

Yours faithfully,
W. M. Tims.

Subscribers' Symposium.

For interchange of opinion among "C. & D." readers, and brief notes on business and practical topics, especially new ideas.

Liq. Antisepticus B.

Can any subscriber inform us what is intended by "liq. antisepticus B," ordered for a British Red Cross hospital? (125/50).

On the Sands.

A Bournemouth Subscriber (155/3) writes: "The pierrots here have a topical song dealing with the affection of the singer for a lady pharmacist. The feeling is so intense that he is impelled to give up his meals in order to receive portions from the hand of the enchantress. The chorus runs:

I have a liqueur of castor oil, and squeeze her dainty hand,
Then I try three penn'orth of sweet quinine,
And whisper, 'Darling, will you be mine?'
I swallow some pills and syrup of squills,
And say in my best manner,
'Let's have a penn'orth of hip-hip-hip-heeacuanha.'

You will notice that the 'penn'orth' idea clings, even though there is a lady in the affair."

Miscellaneous Inquiries.

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

W. H. R. (148/3).—We do not quite understand your inquiry. Is the splinting material to which you refer unobtainable or unsuitable?

W. E. H. (146/7).—**SURGICAL GLUE.**—Your formula differs somewhat from those given in *The Chemist and Druggist Diary*, 1913, p. 72. We have not hitherto seen menthol recommended as an ingredient; it is usually thymol that is employed as an antiseptic. We suppose that "synthetic" glycerin is mentioned to give the impression that it is glycerin of the utmost purity that is needed, but medicinal glycerin is what is always used.

W. H. B. R. (135/29).—**MANUFACTURE OF MATCHES.**—The following is a method of making matches on a small scale as given in Bloxam's "Chemistry":

First of all, slips of wood are dipped in melted sulphur so as to acquire a slight coating, then to make safety-matches 1 gram of powdered potassium chlorate and 1 gram of antimony sulphide are made into a paste with a few drops of a warm solution of 2 grams of gelatin in 5 c.c. of water, the sulphured matches being tipped with this composition. The rubbing surface is prepared with 2 grams of red phosphorus and 1 gram of finely powdered glass, mixed with a solution of gelatin and painted on paper or cardboard with a brush. In regard to your inability to follow up the reference in Thorpe's "Dictionary of Applied Chemistry," we expect your difficulty has been in referring to an edition other than the one intended in "Pharmaceutical Formulas." The present edition of the last-named work gives the reference as "Vol. III., 1912, p. 404." However, as Thorpe's Dictionary is arranged alphabetically, there is not much difficulty in finding the article on matches.

J. C. (148/25).—The plant you send is herb-Robert (*Geranium Robertianum*). Its reddish tinge and strong odour give it a very distinctive character. In the North of England it is called "red shanks," a nickname for Highlanders, on account of its reddish stems. The odour is somewhat goatly; this is perhaps due to some ester of the higher fatty acids, which may possibly possess some therapeutic or antiseptic value. The use of this herb as a remedy for erysipelas is apparently not generally known. Linnæus in his "Materia Medica" (1749) mentions its use as an astringent and vulnerary, and its employment in hysteria and hæmaturia. Folkard states that in Wales it is believed to be a remedy for gout, and in most country places is considered efficacious as an insecticide. Linnæus states that it drives away bugs, and that although eaten by horses and goats, it is refused by sheep and swine. It has also been used by farmers to stop abdominal bleeding in cattle. According to Barton and Castle it was formerly recommended for intermittent fever, jaundice, and scrofula. It has doubtless strongly astringent properties, and its essential oil, which does not appear to have been examined, may possess some remedial value. The odour of the plant is strong and distinctive. Why it is called herb-Robert is not certain. Some have supposed it was so named from being used to cure Robert Duke of Normandy of a disease. For this duke was written the celebrated medical treatise of the Middle Ages, the "Regimen Sanitatis Salernitanum," but the Catholic Church claims that it was named after St. Robert of Molesme, the founder of the Cistercian Order in the eleventh century.

J. H. S. (150/39).—See reply to "W. H. B. R."

J. H. (154/19).—(1) **BEEF SYRUP.**—A process of making beef syrup for use as a sweetening agent was given in the *C. & D.*, March 23, p. 45. It was devised by Mr. A. Vernon Harcourt, Vice-President of the Chemical Society. (2) **MENDING SELTZOGENES.**—A leakage from the upper globe of a seltzogene into the lower vase is prevented by running a small quantity of liquid plaster of Paris into the upper part. The process needs to be carefully carried out if a neat job is to be made.

T. H. (149/18).—**JAM-MAKING.**—It is possible to make an imitation raspberry jam for home use from vegetable marrow, colouring matter, and raspberry essence, but we have no formula for this. Perhaps you will carry out a few experiments for the benefit of *C. & D.* readers.

Salol (149/41).—(1) **REMEDIES FOR EXCESSIVE PERSPIRATION.**—The following are examples of the formulas employed for preventing excessive perspiration and neutralising unpleasant odour:

Ointment.	Liquid.
White wax ... 8 oz.	Burnt alum ... 1 part
Liquid paraffin ... 24 oz.	Boracic acid ... 1 part
Sodium borate ... 100 gr.	Elderflower-water 30 parts
Benzoic acid ... 20 gr.	Dissolve.
Salicylic acid ... 400 gr.	
Water ... 16 oz.	

Melt the wax and oil and heat to 160° F. Dissolve the borax, benzoic acid, and salicylic acid in the boiling water and add to the wax solution, beating vigorously so as to form a cream.

Powder.
Boracic acid ... 4 parts
Salicylic acid ... 1 part
Perfume ... q.s.

(2) Full particulars regarding the export of rubber articles are given in *The Chemist and Druggist Diary*, 1918, p. 80.

C. H. (153/67).—**PRESERVING BROWNING.**—We had a similar case to yours a few weeks ago in which browning fermented and caused much loss when bottled. The difficulty in this case was overcome by using salt as a preservative and bottling under strictly aseptic conditions. The bottles should be taken out of boiling water just before they are filled, and the liquid should be hot when run into the bottles, corks being inserted at once. It is an advantage to soak the corks in formalin solution before use.

W. W. (149/14).—**PRESERVING CONCENTRATED TABLE-JELLY.**—You will need to add a preservative to the jelly if it is required to keep when exposed to air. We think you will find that salicylic acid is the best preservative to employ, the proportion necessary being not more than 15 gr. to the pound. The objection, however, may be taken that the quantity in the finished jelly is a medicinal dose, so that you will need to arrange the amount so that the jelly as eaten does not contain more than 2½ to 5 gr. to the pound. Even then you may have the product condemned by some public analyst whose experience is limited to milk-analysis.

J. P. B. (126/42).—**WATER-SOFTENING.**—The difficulty in replying to your inquiry definitely is caused by the fact that we do not know to what the hardness of the water employed at the laundry is due. "Temporary" hardness is best treated by Clarke's softening process, which consists in adding lime-water to convert the calcium bicarbonate into calcium carbonate, in which form it is precipitated. To ascertain the amount of lime-water that is required test the water (after adding lime-water) with solution of nitrate of silver, and if a yellow or brown colour is obtained more lime-water is required. If the water used is fairly constant in composition it is not necessary to carry out the test very often. Permanent hardness is difficult to treat, but the addition of caustic soda is the simplest way of neutralising the hardness. We advise you to try the effect of removing first the temporary hardness (allowing the precipitate to settle overnight), and then if there is much hardness remaining add a small proportion of caustic soda. You should carry out the experiment on measured quantities and convert these into large amounts when you find you have attained success on the small scale.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," Aug. 15, 1868

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The pharmacist's business, taking it as an occupation bringing in a certain amount of profit, differs almost entirely from every other calling, inasmuch as he only deals in necessities that must be bought by the public, but the sale of which he cannot extend by any exertion on his part as far as each individual customer goes. It is possible that by a little gentlemanly persuasion he may tempt a customer into buying three bottles of Eau de Cologne instead of one; but no amount of wheedling could induce an increased sale of blue pills and black draughts. People can and will only consume a certain amount of medicine; and neither gentle persuasion, judicious advertising, nor reduction in price, will induce them to take more. Hence, any man who adopts the system of cutting down prices, simply reduces the total amount of the income of the trade in general, and is consequently guilty of a disloyal action to his fellows, and an offence against the very first rules of political economy.

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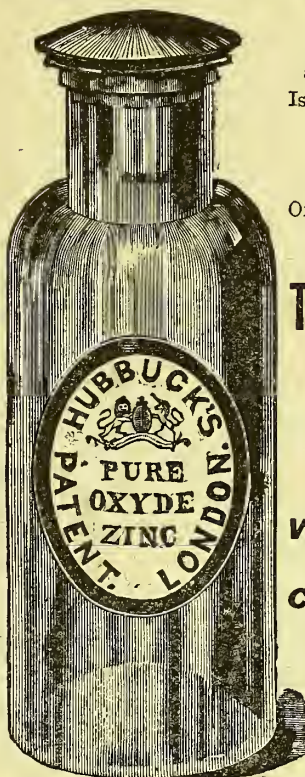
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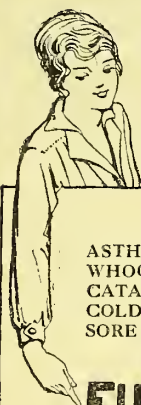
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5.—LONDON, S.E.—Ready-money Business, situate in close proximity to busy railway station; returns £450, under management; scope, for extension; price £300 or near offer.

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7.—HOME COUNTY.—Good middle-class Retail and Dispensing Business; returns last year £851; present rate about £1,000; net profit 33½ per cent.; well-fitted shop and roomy house with garden; price £550.

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12.—OXON (Death Vacancy).—Good-class Business; entirely unopposed; established upwards of 100 years; returns last year £1,453; average net profit £300; good residence, with garden and outbuildings; rent £42; held on long lease; price about £1,000.

13.—MIDLANDS.—Well-established Business; returns £600 at fair prices; scope for development; double-fronted shop; rent £36, which includes residence; price £250.

14.—WINDSOR (Near).—Dispensing and Retail Business; all good-class; returns exceed £1,500; net profit £520; stock and fixtures estimated at £900; vendor's own property; lease will be granted, or property may be purchased; price £1,200; good personal introduction would be given; vendor retiring.

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Messrs. O. & Co. desire to emphasize the necessity of a Periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of confusion and loss.

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PROFITABLE good-class Dispensing and Retail Pharmacy; healthy suburb near Manchester; returns about £1,000 under management; small house; rent £38; no opposition; very little N.H.I.; good family connection; would suit lady or gentleman requiring a light, clean business; price £500. Apply 259/26, Office of this Paper.

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5.—LONDON SUBURB, N.E.—Sound progressive cash Drug Stores in fine main road position; returns nearly £40 a week; no panel; excellent profits; convenient house and premises; well stocked; owner called up; price for quick sale £800; qualified man would soon increase takings to £2,500.

6.—LONDON, S.W.—Good-class Retail and Dispensing Business, in fine position, close to busy station; returns £1,000; no panel; clear net profit over £300; books properly kept; scope for increase, owner retiring; price £450; part could remain; strongly recommended.

7.—LONDON, W.C.—Profitable Cash Retail, increasing; returns, under Manager, £1,050; net profit £300; low rent; good position and well stocked; price £450.

8.—LONDON SUBURB, S.E.—Well-established Cash Retail; very profitable, and scope for increase; returns £540 under Manager; net profit £250; price £300, about value of stock and fixtures.

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BRISTOL, OR WITHIN EASY DISTANCE.—Wanted (immediately), a sound Business, with scope for extension; price about £350; cash ready; replies will be treated in strict confidence. Particulars to "M.P.S." c/o Berdoe & Fish, Chemists' Valuers, 35 Jewry Street, London, E.C.

A GOOD Business wanted, about £3,000 returns, in provincial town or South Coast, or equivalent share in larger concern; a smaller business considered if profitable and expenses low, and situate in pleasant district; cash ready; all replies treated in strict confidence. Apply 250/13. Office of this Paper.

WANTED, Light Business at Harrogate (or near). Send particulars to 257/39, Office of this Paper.

WANTED (at once), very small village Business; must have comfortable house and good garden attached. James, 12 Clarence Square, Brighton.

SITUATIONS OPEN.

RETAIL.

BARNSELEY.—Assistant, lady or gentleman (rejected, Grade 3, or discharged), qualification not essential, for brisk Retail and Dispensing (chiefly N.H.I.); middle-class business; outdoors; hours 9-8, Thursday 1, no Sunday duty; previous Retail experience essential; liberal salary to suitable person. Kindly state full particulars as to age, experience, etc., Nash, 2 Queen Street, Barnsley.

BARRY.—Manager (or Locum) wanted immediately. Full particulars, age, experience, salary required, enclose photo if possible, W. T. Hicks & Co., Cardiff.

BLACKPOOL.—Unqualified Managing Assistant wanted (shortly); ineligible; about 35; permanency, with good prospects; four Assistants kept. State salary, and give full particulars and references (hours 8.30 to 8, Wednesday 1, Saturday 9), Galloway, Blackpool.

BRIGHTON.—Good Dispensing Assistant for the month of September only; outdoors. State terms, etc., Ashton & Co., Dyke Road, Brighton.

BRIGHTON.—Thoroughly capable Assistant for brisk Light Retail; no N.H.I.; good salary to reliable man; comfortable permanent position. James, 11 Clarence Square, Brighton.

BRISTOL.—Qualified, exempt, wanted end of September for Cash Retail and N.H.I. Dispensing. Haywards, Chemists, Ltd., 128 Church Road, Redfield, Bristol.

BRISTOL.—Spracketts, Shipping and Retail Chemists, Tramways Centre, have a vacancy for a smart Assistant; discharged preferred. Apply, giving full particulars as to salary, etc., and enclose photo.

BRISTOL.—Wanted, a good all-round unqualified man; ineligible. Apply, stating age, experience, references, and salary required, to Chandler & Son, Bristol.

BRIXHAM, S. DEVON (near Torquay).—Assistant (either sex or discharged soldier) wanted at once; good-class Dispensing and general work. Apply, stating terms, etc., to J. P. Swaffin, Beach House Pharmacy, Brixham.

CARDIFF.—Duck & Son have vacancies for outdoor Assistants; ladies or gentlemen. Apply, stating age, experience, references, and salary required.

CARDIFF.—Assistant wanted (or Locum two weeks). Full particulars, and enclose photo if possible, W. T. Hicks & Co., Duke Street.

DEVON.—Wanted, qualified Manager to work Light Retail; Dispensing, Veterinary, and Photographic business in charming country town; easy hours; salary offered £3 10s. outdoors, or equivalent indoors. Apply 258/39, Office of this Paper.

DORKING.—F. Strawson, 12 Rose Hill, Dorking, is wanting (at once) an Assistant, lady or gentleman, for the Dispensing Counter; hours easy; duties almost entirely Dispensing; state salary (outdoors), age, and give a recent reference; Dorking is in prettiest part of Surrey.

EXETER.—Wanted, Dispenser; lady or gentleman; unqualified. State age, references, salary required, Milton & Son, 265 High Street.

GLOUCESTER.—Lady Assistant required; outdoors; good-class Dispensing and Light Retail; easy hours. State full particulars, with salary, to Ward & Woodman, Gloucester.

HUDDERSFIELD.—Unqualified Assistant required for brisk Store business; a comfortable berth with good prospects. Full particulars to 254/27, Office of this Paper.

KINGSTON-ON-THAMES.—Assistant wanted, lady or gentleman (outdoors), for good-class business; easy hours; good salary; no Sunday or Bank Holiday duty. State age, height, when disengaged, and salary expected (personal interview preferred), Plumley, Chemist, 51 Fife Road.

LANCASHIRE.—Qualified Manager required; healthy town; suburban business; permanency, with liberal interest in the profits. "A. R." (254/194), Office of this Paper.

LEEDS.—Locum for the month of September. Please state salary (outdoors), and give two recent references, Murrays Pharmacies, Ltd., 221 Woodhouse Lane, Leeds.

LONDON, N.W..—Wanted, for Drug Store, an unqualified Assistant, either sex, for small branch near King's Cross. Apply Grant's Drug Stores, 33 Chatsworth Road, Clapton Park, E. 5.

LONDON, S.E..—Assistant wanted for Dispensing and assist at Counter; qualified; capable and accurate. Apply, stating references, salary, etc., Chemist, 77 High Street, Croydon.

LONDON, S.E..—Assistant wanted (outdoors) for good-class Dispensing business; lady or gentleman; permanency; good salary. Also one for Stock and assist at Counter. Apply, stating experience, age, salary, and when disengaged, to "W." (259/13), Office of this Paper.

LONDON, S.W..—Assistant, with good Dispensing experience, required early. Please state experience, when disengaged, and salary required, Amon, Chemist, 436 Streatham Common, S.W. 16.

LONDON, S.W.—Assistant wanted; outdoors; September 16th; accurate Dispenser; good general knowledge of middle-class business; no Sunday duty, half-day Wednesdays; good references required. Apply 258/1, Office of this Paper.

LONDON, W.—Wanted, an Assistant, lady or gentleman, for good Dispensing business; no N.H.I.; hours 9 to 7, Wednesday 1 p.m. Please state particulars, experience, salary required (outdoors), to W. A. Weston, 8 Sandringham Parade, Ealing.

MANCHESTER DISTRICT.—Assistant wanted; ineligible; half-day weekly and no Sunday duty. State usual particulars and salary required, Needham, Chemist, Stalybridge.

MARGATE.—Dispenser, lady or gentleman (immediately). State salary required (outdoors) and usual details of experience, Evans, Chemist, Parade, Margate.

MIDLANDS.—Unqualified man, Retail experience, required, to assist in the Stocktaking department of firm whose head offices are situated at Birmingham; permanency to suitable man. "Stock" (254/193), Office of this Paper.

MIDLANDS.—Unqualified Assistant for progressive business; would suit discharged man very well; permanency. "21/8." (254/192), Office of this Paper.

NOTTINGHAM.—Reliable Manager for small branch; qualified; ineligible; September 16th. Also Junior for head establishment. Give full particulars with application, S. Cook, Chemist, 76 Radford Road, Nottingham.

SEAFOORTH.—Thoroughly competent Assistant for large, good-class Dispensing business; easy hours; salary a minor consideration if a good man; must have someone. Rutter, Chemist, Seaforth.

SOUTH LONDON.—Assistant wanted (lady or gentleman) as Locum for about one month soon as possible, with good-all-round experience for a quick cash trade. In reply kindly give usual particulars as to salary to 258/28, Office of this Paper.

SOUTH OF ENGLAND.—Assistant required (male or female); free removal; permanency with good salary. Timothy White Co., Ltd., Chemists, Portsmouth.

SOUTH STAFFS.—Wanted, Locum; September 2nd to 16th, or near dates; no panel; live in or out: Withers, Darlaston.

SURREY.—Wanted, reliable, unqualified Assistant; must be gentlemanly; used to good-class business; not over 45; salary 70s. week, with quarters over shop; suitable for married man with no family; undeniable references necessary. Apply 246/35, Office of this Paper.

WEST OF ENGLAND.—Competent Assistant for first-class Dispensing business; hours 9 to 8; commencing salary £5 weekly; an experienced man of good character, and prepared to share with another Assistant all duty may be assured of a comfortable permanency. Apply 257/26, Office of this Paper.

WEST RIDING (Good Healthy District).—Capable qualified Manager required for a sound Family Retail business, which is doing well; good salary, with a liberal interest in the profits offered. Apply 254/190, Office of this Paper.

WORTHING.—Lady Assistant wanted, with Dispensing experience; outdoors; good-class business. Send particulars, with reference, to W. Aston, Pharmaceutical Chemist, Worthing.

A PRACTICAL Dispenser (lady) required shortly for five evenings weekly in a good-class Pharmacy situated in S.W. district. Give usual particulars, including age and salary desired, to "S. P." (259/14), Office of this Paper.

A N ineligible or Grade 3 Manager wanted at an early date. Apply in the first place by letter only, giving full particulars of experience, references, and salary required, to Hopkins, 22 The Chase, Clapham Common, S.W.

A SSISTANT required, lady or gentleman (Ineligible), for good-class country Retail and Dispensing business; easy hours; quick and accurate Dispenser. Apply, stating age, references, and salary required (outdoors), Henry Davis, Chemist, 36 and 37 North Crook Street, Newbury, Berks.

A SSISTANT wanted for a few weeks, chiefly for Dispensing. Apply, giving full particulars, with salary required, to E. Bing & Son, Pharmaceutical Chemists, Canterbury.

A SSISTANT for brisk Retail and Dispensing business; good salary and prospects to a suitable man. Packer, Seaford, Sussex.

A SSISTANT; outdoor (lady or gentleman); whole or part time; knowledge of Dispensing and Retail; no N.H.I. work. Apply G. W. G. Robinson, M.P.S., 307 Raiton Road, Herne Hill, S.E. 24.

A SSISTANT to live over shop; unfurnished rooms; coal, gas, and cooker found; easy berth: hours off daily; lady or gentleman (immediately). Walwin, Chemist, Gloucester.

A SSISTANT wanted for good-class Dispensing business; must be ineligible. Apply with full particulars as to age, height, experience salary required, George & Welch, Pharmaceutical Chemists, Worcester.

BRANCH Manager wanted (at once); must be over military age or ineligible; good salary to suitable man. Apply personally any morning except Saturday, or write, giving full particulars and enclosing if possible recent photograph, Parkes Drug Stores, Ltd., 65 Harwood Street, N.W.

CAPABLE Assistant, ineligible for Army, wanted for Cash Retail and Dispensing business in Windsor. Apply, giving references, and state age and salary required (indoors), to R. W. Houfe, The Poplars, Kirk Hammerton, York.

CAPABLE, unqualified Assistant required (immediately); duties chiefly Dispensing; S.W. district. Apply 257/5, Office of this Paper.

CAPABLE man required; four evenings per week and alternate Sunday evenings; preference given to one employed in the Wholesale or Stores during day; Dispensing and Counter. Dunn, Chemist, 223 Lower Road, Rotherhithe, S.E.

COMPETENT Assistant wanted for Front Counter, and to relieve senior partner, who is partly retiring. State age, experience, references, and salary required, Anderson & Virgo, Chemists, Worcester.

COMPETENT Assistant; accustomed to good-class Dispensing and Family business; ineligible; outdoors. Dyson, Pharmaceutical Chemist, Reading.

D ISPENSER wanted; experienced in high-class Dispensing; no N.H.I.; outdoors; hours of business 8.30 to 7. Mr. Lewis, Chemist, Ealing, W. 5.

D ISPENSER (qualified); thoroughly experienced man required; outdoors; permanency; hours 8 to 6, Wednesdays till 1. Write, giving fullest details of previous experience, references, and salary required, to Mr. J. R. Craig, Chemistry Department, 17 and 19 Union Street, Aldershot.

D ISPENSER, qualified (either sex), required, with good experience of first-class business; easy hours; permanency. Post fullest details of previous experience and remuneration required to Manager, Junior Army and Navy Stores, Ltd., Union Street, Aldershot.

D ISPENSER and Counterman wanted; must be ineligible for military service; salary £150 per annum. Apply 258/4 Office of this Paper.

D URBINS DRUG STORES, LTD., 106 High Street, Wandsworth, require a Manager to replace the present one, who will be joining the Colours shortly; must be ineligible, qualified and experienced, or a thoroughly competent lady not objected to; a personal application preferred. Phone Putney 1160.

GOOD opening for a young qualified man; either rejected, discharged, or Grade 3; permanent and lucrative post. "H. L." (254/191), Office of this Paper.

GUY'S HOSPITAL.—A sixth Dispenser required; Minor qualifications essential; salary £150 per annum. Apply to the Acting Pharmacist.

JAMES LOFTHOUSE & CO., LTD., Fleetwood, require a qualified man; permanency for suitable person. State wages, experiences, etc., James Lofthouse & Co., Ltd., Fleetwood.

JUNIOR Assistant; lady or gentleman. Apply, with full particulars, age, experience, salary required (outdoors), and references, to Jeans, 151 Oxford Road, Manchester.

L ADY Assistant or Improver wanted. Apply, with full particulars, to W. J. Boyes, 61 Balham Hill, S.W. 12.

L ADY; must be able to manage Drug department; busy store near Brighton; good salary to capable and willing worker; owner called up. Apply 255/35, Office of this Paper.

L ADY Assistant for Light Retail business in Central London; some shop experience essential; easy hours. Martin & Co., 164 Charing Cross Road, W.C. (Oxford Street end).

L ADY Junior Assistant required; outdoors; knowledge of Dispensing essential; comfortable berth; easy hours. Full particulars as to previous experience, etc., to G. Peck & Son, Pharmaceutical Chemists, Cambridge.

L ADY Assistant; Window-dresser, invoices and books, assist at Counter. Also qualified Manager; exempt military service; full control. State full particulars, age, experience, references, salary required, when disengaged, Foster, "Ivydale," London Road, Portsmouth.

L ADY Assistant, with Minor qualification, to manage branch; quick Retail business, with Dispensing (chiefly N.H.I.); good salary to suitable person. Apply, with full particulars as to age, experience, etc., to F. H. Prichard, Cash Chemist, Abertillery, Mon.

L ADY Chemist (London), outdoors, in good Dispensing and Retail business; central position for trams, buses, and tube railways, also near Bloomsbury Square and Holborn; comfortable berth; full day off alternate weeks; must have had previous experience and be well recommended. Send full particulars, stating age, height, experience, etc., to "Hewitt" (259/21), Office of this Paper.

LOCUM, lady or gentleman, unqual. or qual., wanted from September 9th to 21st inclusive; Dispensing only; good-class business; no responsibility of management. Apply W. Parry-Jones, Chemist, High Barnet.

LOCUM; qualified; four weeks in September; North-East Coast. State salary, references, 157/43, Office of this Paper.

LOCUM for month of September; reliable and good reference; qualified or unqualified. 18 Wilton Road, Victoria Station.

LOCUM required for two or three weeks, August-September; working-class business. State terms and references to J. F. Wilkinson, 129 Ferham Road, Rotherham.

LOCUM wanted for one or two months; also Branch Manager; good salary; comfortable place. Phillips, Chemist, Ashton-under-Lyne.

LOCUM wanted for two or three weeks September or early October. State terms and full particulars to A. E. Coverdale, Pharmaceutical Chemist, Worcester.

LOCUM, experienced, but qualification not essential, for two or three weeks for good-class Dispensing and Light Retail; about 25 miles from town. Apply 9 Alwyne Mansions, Wimbledon, S.W. 19.

LOCUM (Pharmacist) wanted for three weeks; light Hospital duties; Manchester district. Apply 259/7, Office of this Paper.

MANAGER required for old-established City Retail business; only men qualified to take sole charge need apply. Apply 153/3, Office of this Paper.

MESSRS. TIMOTHY WHITE CO., LTD., Chemists, Portsmouth, require a capable Pharmacist (male or female); easy hours; good and progressive salary, with excellent prospects; free removal.

QUALIFIED lady Dispenser and Bookkeeper required by Doctor; East Coast; state age, experience, and salary required (outdoors). Apply 254/35, Office of this Paper.

QUALIFIED to manage small business; would suit elderly gentleman; no heavy work; hours 8.30 to 8, Saturdays 9, weekly half-holiday; knowledge of Welsh an advantage. Apply, with particulars, salary required (outdoors), Rogers Jones, Llandudno Junction.

QUALIFIED Manager; exempt; one invalided out of the Army not objected to; plenty of help given. Apply Mrs. G. F. Forster, Castle Street, Dover.

QUALIFIED Manager or Manageress required; middle-class business; S.W. district; N.H.I. Apply, stating salary and references, "S." (255/33), Office of this Paper.

QUALIFIED Manager, with view to succession; £100 cash and balance by instalments; an excellent opportunity of acquiring on easy terms a good-class business in a good neighbourhood, with good house accommodation. Apply F. J. Sproston, 118 Rodenhurst Road, Clapham Park, S.W. 4.

REQUIRED by Doctor for East-end Practice, a lady Dispenser; attendance morning and evening; salary £2 2s. per week to commence. Apply 155/49, Office of this Paper.

SALESMAN and Dispenser wanted (unqualified) for Chelmsford and Sutton; must be ineligible or over military age. Apply personally any morning except Saturday, or write, stating salary required, when disengaged, and enclosing if possible recent photograph, Parke's Drug Stores, Ltd., 65 Harwood Street, N.W.

SURGICAL INSTRUMENT BUSINESS.—Assistant for Shop Counter; state age, other duties accustomed to, and wages expected. Reply "Surgical," Lee & Nightingale, Liverpool.

THE GENERAL HOSPITAL, BIRMINGHAM.—Assistant Dispenser required; lady; qualified; Hospital experience essential; salary according to experience. Applications with testimonials stating age, experience, and when disengaged, to the House Governor.

UNQUALIFIED Manager for Cash Drug Stores; use to quick cash trade; good references essential. Apply Hancock, Tower Bridge Road.

UNQUALIFIED Assistant wanted for good-class business at Four Oaks; male or female; from September 5th. State salary required (outdoors), with references, to W. G. Bodley, Avon Cottage, Kingswinford, Staffs.

UNQUALIFIED Assistant, rejected, Grade 3 or discharged, for progressive Store business in healthy West Riding town; comfortable permanency, with good prospects. "W. R." (254/19), Office of this Paper.

UNQUALIFIED Assistant for small branch; permanent situation; Speciality and Proprietary business; salary £3 and commission. Hulme's, Chemist, Nottingham.

URGENT.—Qualified or unqualified Manager required for Light Retail branch in the Liverpool district; comfortable berth; outdoors; to save time please give full particulars as to salary, etc., and easy hours. Apply "Phenacetin," c/o Messrs. John Thompson, Ltd., Hanover Street, Liverpool.

WANTED (at once), Dispenser; non-eligible for the Army; must be accurate and quick; total abstainer preferred; good salary and easy hours. Apply, stating references, to Manager, 31 High Street, Chelmsford, Essex.

WANTED (qualified), lady or gentleman; elderly man not objected to; good cash trade, N.H.I. Dispensing; state salary required, also send references; preference given to one who can commence duties immediately. Apply Lancashire Drug Co., Ltd., Accrington Road, Burnley.

WANTED, a qualified Chemist; also a Junior Assistant. Apply, giving references, to Bennison, 8 Cale Street, Chelsea.

WANTED (immediately), qualified Manager; liberal salary and commission to suitable man; Manchester district. Apply 255/31, Office of this Paper.

WANTED, a Qualified Assistant, young, unmarried, exempt, with a view to succession; business established 84 years; Mixed Drugs, Stationery, Fancy Goods; substantial and increasing returns. Apply 256/40, Office of this Paper.

WANTED, Assistant; male or female; outdoors; unqualified; ineligible or of low category. Apply, stating age, experience, and salary expected (no Sunday duty), to Cooper, Pharmacist, Falsworth.

WANTED, elderly or partly disabled qualified man for branch; certificate the main consideration; easy berth, outdoors. Give full particulars in first letter (permanency), "Spero," South Wales.

WANTED (immediately), male, ineligible, or female Dispenser; knowledge of Counter work an advantage. Apply, stating salary required (another lady Assistant kept), Mr. Evans, Chemist, York Place, Brighton.

WANTED, Nurse Dispenser by Doctor practising on East Coast near large town. State salary required, 254/8, Office of this Paper.

YOUNG lady Dispenser required, with Counter experience preferred, for Crouch End district; must have the Apothecaries' Hall qualification; if convenient apply personally any morning except Saturday, Parke's Drug Stores, Ltd., 65 Harwood Street, N.W.

WHOLESALE.

A WELL-KNOWN house, handling Surgical Dressings, Chemists' Sundries, Toilet Specialities, and Perfumery, want Representatives for (1) Scotland; (2) Staffordshire, Worcestershire, and Shropshire; (3) Lancashire; (4) Birmingham. Applicants must state what area they are interested in, giving full particulars of previous experience and qualifications. Apply 156/22, Office of this Paper.

BAISS BROTHERS & CO., LTD., require a man accustomed to work in Manufacturing Laboratory. Apply 175 Grange Road, Bermondsey, S.E. 1.

DISCHARGED, officer preferred, wanted for Works; state experience, articles made, age, wage, etc., previously; permanency for good man. Burdall & Burdall, Anchor Works, Sheffield.

FOREWOMAN wanted for Drugs, Packing, and Perfumery Manufacturing department; must be used to managing girls. State experience and wages required to 257/9, Office of this Paper.

INTELLIGENT man required for Laboratory work in Manufacturing Chemists; principally liquid colours. Apply by letter to Stevenson & Howell, Ltd., 95a Southwark Street, S.E.

INVOICE Clerk required for City Wholesale Druggists (male or female). Apply by letter, giving full particulars, to C. J. Hewlett & Son, 35-42 Charlotte Street, E.C.

LABORATORY Assistant wanted for a high-class Manufacturing Pharmaceutical house; good pay and prospects; Wholesale experience or knowledge of factory methods a recommendation. Apply by letter to "Benzoin" (256/23), Office of this Paper.

LADY required, with some knowledge of Pharmacy and an aptitude for figures. Apply the Secretary, The British Drug Houses, Ltd., Graham Street, City Road, N. 1.

MANAGER for Dispatch Counter; also one for Laboratory; male or female; qualified C. and D.'s; London Wholesale house. State experience and salary wanted, "X. Y. Z." (155/64), Office of this Paper.

QUALIFIED Manager wanted for Chemistry and Drug department by the Wallsend Industrial Co-operative Society, Ltd., Carville Road, Wallsend-on-Tyne; must be capable of managing a mixed department doing a turnover of £8,000 per annum. Apply with references, stating age, qualifications, and salary required, on or before Monday, September 2nd, 1918 (short hours), F. Robertsou, Secretary.

REPRESENTATIVES (two) wanted for South Coast and West of England for lines which command a ready sale amongst Hairdressers; must be good Salesman and experienced. Apply, with full particulars, C. A. Stokes & Co., Ltd., "Eclipsol" Works, Bristol.

REPRESENTATIVE.—An exceptionally attractive position is offered by Wholesale firm to gentleman possessing selling ability and some knowledge of the Drug trade; all communications under this heading will be treated in strict confidence. Write in first instance to "Senex" (256/230), Office of this Paper.

REPRESENTATIVES on commission for North and South Wales and South Coast; popular high-class Toilet article which supplies a war-time need; would suit lady travellers requiring a side line. Usual particulars of ground covered, present lines, etc., to the Menolan Co., Ltd., 235 Bristol Street, Birmingham.

REQUIRED, the assistance of a practical Chemist in making some experiments in the preparation of a new domestic article. Write Hygienic Requisites Syndicate, 8a City Road, E.C. 1.

SHORTHAND-TYPIST (Junior) required for City Wholesale Druggists. State salary required and full particulars, in confidence, to C. J. Hewlett & Son, 35-42 Charlotte Street, E.C.

STRONG man or woman wanted for easy job in making Surgical Dressings in London house. Apply, giving particulars of past work, "X. Y. X." (155/641), Office of this Paper.

TABLET Maker or Granulator wanted; Liverpool; permanent post; good salary. Apply 137/18, Office of this Paper.

TABLET Maker required (immediately); male (ineligible for Army) or female; good wages and prospects; permanent position; applicants must have had experience in granulating. Apply, stating experience, etc., to 158/68, Office of this Paper.

WANTED, experienced Tablet Machinist. Apply W. B. Cartwright, Ltd., Tablet Makers, Rawdon, near Leeds.

WORKERS (male) wanted for Chemical Laboratory dealing in Pharmaceutical Specialities, etc.; must have Chemical and Pharmaceutical knowledge (qualified or unqualified); ineligible. State experience, salary required, and send copy of reference to Box 627, Smiths' Agency, Ltd., 100 Fleet Street, London, E.C. 4.

WANTED, in the Manufacturing department of a large London Stores, a man experienced in the manufacture of Tooth Pastes, Creams, and Face Powders; ineligible for military service. State experience and wages required to 253/25, Office of this Paper.

WANTED (used to Sundries, Patents, etc.), discharged or ineligible man; references required. Apply personally, Butler & Crispe, 80-82 Clerkenwell Road, London, E.C.

WANTED, Invoice Clerk and Wet Counter Hand; males or females. State experience and wages required, Gale & Co., Ltd., 15 Bouverie Street, E.C. 4.

WAREHOUSE Clerk required (at once) for checking; export packing. Apply W. M. C., Burgoyne, Burbidges & Co., Ltd., High Street, South East Ham.

YOUNG man for packing, putting up stock, checking goods, etc.; must be ineligible for Army or discharged; quick Store trade; good worker. Send full particulars to "Arnica" (255/18), Office of this Paper.

SITUATIONS OPEN.

(Colonial, Indian and Foreign.)

JAPAN.—Wanted immediately, an Assistant (qualified preferred) in a first-class Chemist's business at Kobe; easy hours; four years' contract; passage paid out and home; must be ineligible for the Army. Send for full particulars, with photo, to J. W. Franklin, 28 Alieyn Road, London, S.E. 21.

SITUATIONS WANTED.

1s. for 12 words or less; 6d. for every 10 words or less beyond, prepaid.

[HOME.]

RETAIL.

A WELL-EDUCATED gentleman (24, discharged) desires position as Secretary to first-class Doctor or to head of Wholesale firm of Chemistry; thorough knowledge of Medicine; highest capabilities. Write "Debonnaire," 29 Thornton Avenue, Chiswick, W. 4.

ADVERTISER, having partly passed Hall, would give two or three hours twice weekly to assist Chemist in N.W. London district; experience in practical Dispensing desired. Miss Scriven, 39 Marshall Road, Cambridge.

BRANCH Manager; qualified; 42; thoroughly capable; excellent references; abstainer; Grade 3; moderate salary if convenient house attached or obtainable; outdoors; quick cash preferred; disengaged one month. Apply 259/5, Office of this Paper.

DISABLED Chemist; Army Dispenser; fluent French; three years R.A.M.C.; active; considered good Salesman; West-End and Continental experience. "Lennos," 20 Merrick Square, E.C.

DISCHARGED man requires berth as Counter Assistant; four years' Retail experience. E. Williams, 287 Queen's Road, Peckham, S.E.

DISCHARGED soldier, 27, tall, good Counterman and Dispenser, requires comfortable permanency near Birmingham. "Digitals" (259/9), Office of this Paper.

DISPENSER (Hall) seeks post; Doctor; near Coast preferred. Apply 255/25, Office of this Paper.

DISPENSER, lady, Hall certificate, desires post; Hospital or Doctor; London preferred. Apply 245/6, Office of this Paper.

DISPENSER (Hall) requires post with Doctor; country preferred. Apply 251/28, Office of this Paper.

EXPERIENCED Dispenser seeks situation; locum or part-time; Chemist or Medical Practitioner. Apply 257/18, Office of this Paper.

GENTLEMAN, over military age, retired, offers services to Scottish Chemists and Doctors; £5 weekly. Apply 253/28, Office of this Paper.

IPSWICH OR NEAR.—Experienced Dispenser wishes for post; excellent testimonials. Apply 255/40, Office of this Paper.

LADY Dispenser, Hospital experience, desires Locum; one week, September or October; Lancashire district. Apply 254/28, Office of this Paper.

LADY Dispenser requires post with Doctor (September); experienced; Hall qualifications. Apply Stewart, 49 Grange Road, Ealing, W. 5.

LADY Dispenser, Hall qualification, desires post with Doctor; country preferred; experienced. Apply 257/8, Office of this Paper.

LADY Dispenser (Hall) desires post in Institution; experienced and thoroughly reliable. Apply 257/800, Office of this Paper.

LADY requires Locum for fortnight; Counter Dispensing; highest references. "K.," 39 Donison Road, Ealing, W.

LADY Dispenser (Hall qualification) desires post as Locum or permanency. Apply 256/19, Office of this Paper.

LADY Dispenser (Hall) desires evening post; N.W. district; no Retail. Apply 247/14, Office of this Paper.

LADY Dispenser seeks post; Doctor's and Institution experience; disengaged September. Miss Wood, Kingston Infirmary, Kingston-on-Thames.

LADY Dispenser requires whole or part-time post in London. Apply 260/8, Office of this Paper.

LADY Dispenser, qualified, experienced, desires post; Institution or with Doctor; care of instruments and books. State full particulars, 259/24, Office of this Paper.

LOCUM Manager; 50; 6 ft.; disengaged September 30th. "Major," 67 Northumberland Road, Coventry.

LOCUM from September 5th; qualified; 54; recent references. Apply 254/36, Office of this Paper.

LOCUM; 44; qualified; highest references; open dates September 3rd for seven or ten days; salary £5 10s.; railway fares. "Chemicus," 54 Osmondthorpe Lane, York Road, Leeds.

LOCUM or permanent Dispenser (Hall); free September 1st; several years' experience; excellent references; Institution, Hospital, or Doctor. Miss MacSheehy, 24 Ebury Buildings, Ebury Square.

LOCUM; qualified; 12 days September. "Chemist," 5 Rutland Street, Colne, Lanes.

LOCUM Dispenser; Hall; experienced; Doctor at seaside preferred; disengaged about September 10th. Miss Saul, 129 High Street, Brentwood, Essex.

MANAGER; 49; exempt; experienced, reliable, energetic; London preferred; permanency; Salesman, Prescriber, etc.; unregistered. Address "Statim," 77 Abbeville Road, Clapham, S.W.

MANAGER, with view to partnership or succession; references exchanged; varied experience; ineligible for Army; age 50; total abstainer. "Reliable" (258/2), Office of this Paper.

MANAGEMENT, SUPERVISION, OR RELIEF.—Fully-qualified Chemists, over military age, residing in London, offers whole or part-time services; active worker; experienced in Prescribing, Optics, and Dentistry; abstainer; good references. "X. L." (256/1), Office of this Paper.

MANAGERSHIP; thoroughly competent and alert Pharmacist; 28½; business builder; Prescribing a speciality; undeniable first-class references; £5 10s. weekly, or equivalent salary and commission; state hours, etc.; Grade II. Apply 258/22, Office of this Paper.

MANCHESTER.—Experienced Assistant seeks engagement for Dispensing or other duty on Saturdays after 2 p.m. "Chemic," 100 Thornton Road, Rusholme.

PHARMACIST, married, Grade 3, seven years' successful Manager, requires position; with view to succession preferred. Smith, 26 Divinity Road, Oxford.

QUALIFIED, Grade III., five years with present employers, seeks change with good prospects; management with or without view to succession preferred; good experience in general Retail and Store training. Apply 253/8, Office of this Paper.

QUALIFIED; 38; Dispensing experience; Army discharged; disengaged third week in September. "Salol" (256/22), Office of this Paper.

QUALIFIED, ineligible, with first-class experience, requires permanency as Branch Manager; married. Kindly state salary offered to "Cinchona" (256/3), Office of this Paper.

QUALIFIED Locum Manager; permanency; full discharge; experienced; reliable; used to sole charge; good reference; disengaged September 8th. Chemist, 5 North Terrace, Bishops Stortford.

RELIABLE Dispenser and Surgery Attendant, 30, disengaged July 8th, requires locum or permanency with Doctor or Institution; last situation, one year management of Drug Store, five years with Doctor. Write Mr. M. Birch, 16 Melrose Gardens, Hammersmith, W. 6.

SURGEON Locum Dispenser, 56, for one week commencing 2nd September; knowledge of Chemist's Retail, N.H.I.; town or country; terms moderate. "C.," 42 Lancaster Street, S.E.

UNQUALIFIED, 24, Grade III., 10 years' good-class experience, desires change; state salary offered and hours; Northern Counties preferred; at liberty September 29th. Apply 258/6, Office of this Paper.

YOUNG lady, Minor, Hospital and Shop experience, seeks post; Midlands or West. Apply 255/28, Office of this Paper.

YOUNG lady requires position as Chemist's Assistant in Manchester, Salford, or Pendleton district; two years' experience. Apply 156/19, Office of this Paper.

YOUNG lady (nine months' College tuition) requires situation with Chemist as Improver (West of England). Jewell, 23 Basset Street, Camborne, Cornwall.

WHOLESALE.

GENTLEMAN desires position as Managing Clerk; thorough knowledge of Drug trade, experienced Export, Shipping, etc.; capable correspondent and accountant. Write particulars to 257/13, Office of this Paper.

LAD, 16, Secondary School education, wants situation in Analytical Laboratory where he will have an opportunity of learning as well as wage-earning. "S," 108 Guilford Street, W.C.

PH.C. desires position as Laboratory Manager or Works Chemist; 20 years in manufacturing Synthetic, Organic Proprietarys, Galenicals, etc., and also in experimental work, Research, and Bacteriology. "H. J.," 7 West Road, Tottenham, N. 17.

PH.C. requires post with go-ahead firm; manufacturing, buying, control staff, packing, etc.; efficient organiser; correspondence promptly answered; good man, not a theorist, keeping eye on results. "Practical" (260/11), Office of this Paper.

POSITION desired as Traveller for or Manager of Manufacturing and Packing department of a provincial Wholesale Drug house; non-eligible; long experience on own account. G. R., 34 St. Saviour's Road, Leicester.

REPRESENTATIVE, with highest credentials and large sound connection, requires good-class lines for sale on commission terms. Apply 257/17, Office of this Paper.

REPRESENTATIVE (gentleman), qualified, would represent good house; part-time; small salary and commission. Apply 257/28, Office of this Paper.

REPRESENTATIVE (changing) would entertain first-class proposition; only by competitive, established, and reputable general Drug house preferably, offering progressive prospects with opportunity, if desired, for acquiring some interest later; sound experience and large connection (North-East, Midlands, etc.); exempt; qualified. "Popular" (258/14), Office of this Paper.

YOUNG lady, of good business ability, desires post as Traveller. Apply "Capable," G.P.O., Weston-super-Mare.

SITUATIONS WANTED.

(Colonial, Indian and Foreign.)

QUALIFIED lady Chemist, of good address, desires situation abroad. Apply 258/12, Office of this Paper.

MISCELLANEOUS.

MCADAM & TUCKNISS, Stock and Share Brokers, Bank Chambers, Blackheath, S.E. 3. Established 1898. Telephone: 81 Lec Green.

Shares for Sale (free of commission, subject).—£200 Aerators 6% Deb. Stock, 86½ per cent. dividend due October; 10 Allen & Hanbury "B" Preference, 20s.; 100 W. J. Bush £5 Preference, 74s. 7½d.; 100 Boots Drug 7% "D" Preferred Ordinary, 22s. 6d.; 50 Parke's Drug 5% Preference, 15s. 9d.; 16 Idris "A" Preference, 16s. 9d.; 100 International Plasmon Ordinary, 8s. 3d.; 200 Mellins Food Prefrs., 14s. 4½d.

Wanted (subject).—Allenbury Preference; Idris "A" Preference and Debutene Stock; G. B. Kent Preference; Parke's Drug Ordinary and Preference; Wright Layman Preference; W. J. Bush Debutene Stock; 150 Sanitas, 23s.

Every effort made to effect business for Buyers and Sellers in all Stocks and Shares. Bankers, London County and Westminster.

SECOND-HAND CHEMISTS' FITTINGS.—We have an exceptionally fine selection of these in all sizes; prices are right, and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, London, E.C.

SHOWCASES AND SHOP FITTINGS.—Several fine Silent Salesman Showcases and Counters; quantity of useful Shop Fittings; low prices. Write inquiries, Philip Josephs & Sons, Ltd., 93 Old Street, London, E.C. 1.

EXCHANGE COLUMN.

One halfpenny per word with name and address. One penny per word if we register the address and attach a number. No advertisement inserted for less than 6d.

FOR DISPOSAL.**DENTAL.**

10 DENTAL Forceps, Maw's circular-jointed, in leather pouch; good condition. What offers? Shipman, Thurlstone, Torquay.

DRUGS AND CHEMICALS.

FOR Sale, Thymol, 28 oz. What offers? Or exchange Acetate of Soda Crystals. Chambers, Arnold, Nottingham.

OFFERS for 4 doz. 1s. Ononid, clean condition, and 10 lb. genuine Oil of Sassafras. Suffern, 304 Shankill Road, Belfast.

FOR Sale, 6 lb. Wayne County Oil of Peppermint, 20s. lb. net. Butterworth, Chemist, 11 Bewley Street, Hulme, Manchester.

OPTICAL AND PHOTOGRAPHIC.

WHAT offers? "New" Keratometer, fitted for Electric Light. Laird's, Chemists, Limerick.

MISCELLANEOUS.

SALTER Typewriter, No. 6; as new, £12. "M.," 41 Newcomen Street, S.E. 1.

TON Soap Powder; super quality; in ½ cwt. bags. Offers wanted; sample free. Harvey, Knaphill, Surrey.

ONKEN YOUNITS, set No. 105 complete, for Chemists, as new, £5 5s., cost £7 10s. "Onken" (253/12), Office of this Paper.

MIXER, oak, gummetal blades, 2 ft. 1 in. deep, 1 ft. 10 in. diam., hand, adaptable power, £16; Robert's Bottle Filling Machine, No. 1, nearly new, £18. Jackson's, Pownall Square, Liverpool.

WANTED.

WANTED immediately, one Sparklet Syphon "B." Coopers, Berkhamsted.

ANY quantity IODGLIDINE. J. R. Walker, 36 New Cavendish Street, W. 1.

BRITISH Wines: Orange, Red, and Sherry. Address 152/510, Office of this Paper.

ACETATE of Soda Crystals. Quantity and cash price Chambers, Arnold, Nottingham.

CARAWAY Seeds wanted; small or large quantities. Chemist, 17 Scotland Road, Liverpool.

OPTICAL Trial Case wanted. M. Blumenthal, M.P.S., 164 Lightbourne Road, Moston, Manchester.

LENS Measure, Retinoscope, Ophthalmoscope. Particulars, price to "Optics," 90 High Street, Hythe.

"TWINPLEX" Strapper for Gillette Blades, or address of makers. Cooper, Chemist, Birkenhead.

ONE Tablet-making Machine; preference American. Write particulars, 157/9, Office of this Paper.

PANOPEPTON wanted. State price and quantity to Walpole Drug Stores, 135 St. Mary's Street, Southampton.

OINTMENT MILL in good condition. Send details and price to Chemist, 13a St. Paul's Avenue, Willesden, N.W. 2.

TAPERS, 5, 6, 10, and 12 gallons; also Casks, suitable for holding Spirit. Apply 158/51, Office of this Paper.

TABLET-MAKING Machine; second-hand. State number of tablets produced per revolution, 157/67, Office of this Paper.

SMALL quantity of Saxin; good price will be paid. State price and quantity to E. H. K., 33 Furnival Street, E.C. 4.

FOR Sale, 2 2-gallon Shaw Carboys, pear shape; 4 10-gallon Carboys; 2 gross Hygiene Breast Shields, white glass, without teats; 1 40-gallon Barrel "Price's" Best Lamp Oil; first reasonable offer accepted. C. C. Co., 40 Bellenden Road, Peckham, S.E.

WANTED, Glycerine in any quantity; state quantity and price. 142/49, Office of this Paper.

OINTMENT-FILLING Machine, new or second-hand. V. S. C., 32 Church Street, Burnley.

GRINDING Machine for Chemicals; hand or power; state maker. V. S. C., 32 Church Street, Burnley.

TO buy, 1,000 or 2,000 gross No. 2 and No. 3 Screw-capped Tablet Bottles. Apply 148/53, Office of this Paper.

PETROLEUM Jelly; not particular to colour; any quantity. Sample and price, V. S. C., 32 Church Street, Burnley.

WANTED, Radium Salt, pure or Residues, old Applicators, etc. Apply Harrison Glew, Radium Laboratories, 156 Clapham Road, S.W. 9.

TO purchase, 200 or 300 gross 1 oz. and 2 oz. Pomades, Jars, with or without screw cap. Quote W. B. Cartwright, Ltd., Rawdon, near Leeds.

SPECTACLE Lenses, Gold-filled Spectacle and Eyeglass Frames, in any quantity. Particulars and prices to Bishop & Vincent, 460 Holloway Road, N. 7.

OPTICAL books, Minor, Major, Chemists' books; send prepaid for valuation, cash offers per return. Gower, Bookseller, 41 Voltaire Road, Clapham, S.W. 4.

WHITE Beeswax and Stearic Acid; best qualities only; small or large lots bought for cash. State price and quantity on offer to 145/46, Office of this Paper.

BIG prices paid for Stokes' or Colton Tablet Machines; Pill Machinery also wanted. Particulars to 78/58, Office of this Paper.

JOB line Tins wanted, suitable for Boot Polish, etc. We are also buyers of Tin Plates, printed or plain. Also Cartons for same. "Brytenup" Polish Works, Marsh Lane, Preston.

DISPENSING BOTTLES & PHIALS.

CLEAR BLUE TINTED, plain or graduated.
3 and 4 ounce. 6 and 8 ounce.

WHITE PHIALS, plain or teaspoons.
1 ounce. 1½ ounce.

1 " " BLUE LOTION BOTTLES, all sizes.

CORKS. Superior Quality. No advance in price.

6 and 8 ounce ... 1s. per gross, in 6 gross bags.
Vials ... 10d. per gross, in 3 gross bags.

Delivered free within 7 miles, and to certain stations. Particulars on application.

I. ISAACS & CO., Glass Bottle Manufacturers,
106 Midland Road, St. Pancras, London, N.W. 1,
or ISLINGTON BOTTLE COMPANY,

7 New Inn Yard, Tottenham Court Road, London, W. 1.
Orders sent to either establishment have attention.

Established 100 Years.
Baptists: London County and Westminster Bank, Bloomsbury Branch.

WATSONS' OF SHEFFIELD

Give TWO-THIRDS Retail Price
for No. 1 Junior Kodaks and
No. 2 Folding Brownies and for
many other cameras.

Three-quarters Retail Price
for ROLL FILMS of all kinds.

Out-of-date films bought for experimental purposes.

If you have anything photographic, cameras, apparatus or supplies you cannot sell, send it to us now. It will never be worth so much to you again.

Ask your nearest chemist friend if he was satisfied with the price we paid him. He'll tell you.

All remittances immediately and all goods returned CARRIAGE PAID at once, if required.

This is what a leading Pharmacist says of our business.

"Gentlemen,— August 20th, 1918.
I am obliged for your cheque in settlement of photographic goods recently sent you. I can only repeat my complete satisfaction with your methods, and although I do not expect an expression of opinion from a small business like mine is of any value, I hope you will refer to me if you have anyone in this district to whom such opinion would be of interest."

WATSONS', The Camera House,
Tel. No. 27. 84 High Street, Sheffield.

SUNDRIESMEN.—Do you want the sole selling rights in your territory for a self-selling speciality, a sure repeater, retailing at 6d.? Distributors are wanted for the whole of Ireland, Scotland, S. Wales, W. and S. of England, including London. Write at once for full particulars, stating exactly the limits of ground covered, to The Inhaler Manufactory, 17 Lord Street, Stockport.

SACCHARIN TABLETS.

Absolutely Pure and Soluble.
Made from finest Monsanto (American) Saccharin.

In 1 lb. boxes containing 8,000, 15/6 per 1,000.
Prompt delivery by registered post. Cash with order. Attractive Window Bill enclosed.

WATSON & CO. Tablet Manufacturers,
8 ALBERT STREET, Loughborough.
Cheques to be crossed: London City & Midland Bank, Loughborough.

SACCHARIN TABLETS.

1/2-gr. 330 in 1	...	...	10,000 at 21/6 per 1000
"	"	"	25,000 at 21/3 " "
1/4-gr. 330 in 1	...	...	10,000 at 16/6 per 1000
"	"	"	25,000 at 16/3 " "

Cash with Order. Reg. Post Free.

J. AUSTIN, Chemist, Alum Rock Rd., SALTLEY, Birmingham

UNCONTROLLED SACCHARIN TABLETS

Immediate Delivery guaranteed from large stock.

1/2 grain 330 in 1. 7,030 to the lb.—

1,000 @ 21/6,	5,000 @ 21/3,	1 lb. @ £7/7/0,	2 lbs. @ £7/6/0,
3 lbs. @ £7/5/0,	5 lbs. @ £7/4/0,	10 lbs. @ £7/3/0,	25 lbs. @ £7/2/0
1/4 grain 330 in 1—		50 lbs. @ £7/1/0	

5,000 @ 16/6, 10,000 @ 16/1, 25,000 @ 15/11, 50,000 @ 15/10.
Free registered post. Cash with order. Cheques crossed
London City & Midland Bank.

W. TRAVIS, 203 WHITECROSS STREET, LONDON, E.C.1.

SACCHARINE TABLETS

1/2 grain in one.

10,000	at 16/-	per 1 000
25,000	at 15/10	per 1,000
50,000	at 15/8	per 1,000
100,000	at 15/7	per 1,000

or over.

Immediate Delivery Guaranteed. Postage & Packing 1/- extra

THE B. & A. TRADING CO.
6 St. George's Terrace, Regent's Park, London,
N.W. 3.



BEST BRITISH MAKE.

6x10	7x10	8x10	8x12
Drab 3/11	4/2	4/6	5/- ea.
Red 4/1	4/6	4/9	5/4 "

No Advance. Special
Discounts for quantities.

JAMES TOMPKINS,
LTP.

(THE RUBBER HOUSE),
386 City Rd., London, E.C.1.

Established 41 years.

R. GIBBINS & CO.

— WHOLESALE —
Tablet Manufacturers,

1 Birkbeck Rd., Kingsland, London, E. 8

Price of Saccharin Tablets
can be had on application.

Cotton Wool

Compare quality, as well as price, before ordering.
WE can save you about 30%.

WHITE ABSORBENT COTTON WOOL (interleaved)
in 1 lb. rolls, at 2/2 per lb.

Packed in 1 cwt. Bales. Bales charged extra, 3/6 each.

Also packed in 56-lb. bales at 2/2 1/2, and in 28-lb. bales at 2/3 per lb.
carriage paid on 56 lb. Bales 2/6 & 1/6 each. Cheque with Order.

Bales must be paid for, and allowed for when returned.

We can also offer 25 cwt. NAPHTHALENE (Flake) at 35/- per cwt.

THE PRIMO DRUG COMPANY
5 BURY NEW ROAD, MANCHESTER.

P.A.T.A. NOTICE.

The prices announced below will come in force as from the date of this issue :—

		Minimum Retail Price.	Minimum Wholesale Price.
3 oz. Buffham's Resinol Ointment,	st.	5/-	50/-
3 oz. " " "	u.s.	—	38/-
1 oz. " " "	st.	3/-	27/6
1 oz. " " "	u.s.	—	21/6
Advert. Price.			
1/3 Carter's L.L. Pills	... 1/3	{ 12/8 12/3 by 5 doz. 12/- by 12 "	
3d. Grossmith's Shampoo Powders	3d.	19/5 gross.	
1/6 " " " (boxes of 7)	1/6	12/5 doz. bxs.	
6d. Harrison's Nursery Pomade	6d.	{ 4/6 doz., or 13/4 for 3 doz.	
1/- " " "	1/-	{ 9/- doz., or 26/8 for 3 doz.	
3/9 Newman's Fortreviver	... 3/9	36/-	
5/6 " " "	... 5/6	50/-	
Sparklet Syphon, "C" Qt.	... 10/-	96/-	
Tetlow's Swansdown	... 9 1/2 d.	6/2	
1/3 Woodcock's Wind Pills	... 1/3	12/3	
3/- " " "	... 3/-	29/6	

"BENNETT'S" Saccharin Tablets

The Finest yet offered. Soluble.
Immediate Delivery from Stock.

1 lb.	... £7 0 0	per lb.
5 lb.	... £6 18 9	"
10 lb.	... £6 18 3	"
50 lb.	... £6 17 6	"
100 lb.	... £6 16 6	"

Average over 8,000 Tablets to the lb.

CASH WITH ORDER. CARRIAGE PAID.

BENNETT & CO., Cromwell House,
HOLBORN, LONDON, W.C. 1.

Saccharin Tablets

(GUARANTEED STRENGTH)

IMMEDIATE DELIVERY. NO WAITING.

1 lb. for £6 18 6	per lb.	9 lbs. for £6 10 0	per lb.
5 lbs. ,, £6 15 0	,,	20 ,, £6 5 0	,,

SWEETENING POWDER 80 times as Sweet as Sugar.
At £4 5 0 per lb.

The Lawrence Saccharin Tablet Co.
36 Camomile Street, London, E.C. 3.

We are open to appoint first-class agents and travellers, correspondence invited.

DAMANCY & CO., HARROW

SWEETENING TABLETS OF PURE SACCHARIN (Monsanto) COMPOUND

One equal to a teaspoonful of sugar.
15/- per 1,000; 14/6 per 1,000 for 20,000; 13/6 per 1,000 for 100,000. Reduction for larger quantities. Cash with order. Carriage paid.

8/6 Jay Mack's Ledger 10/6

VERY FEW. gives yearly Sales, Purchases, Exes., with only 10 mins. work weekly; Easy Stocktaking explained; Form Pages show Balance Sheets and Income Tax Deductions; no previous Book-keeping experience needed.

On approval receipt of cheque. 1/- Post Booking Fee, deducted if returned.

Mack-Ivor, Hightown P.O., Crewe.	Ayrtons, Evans, Bleasdale, Uxal Raimes (Edinb.)	Australia: Felton Grimwade C.D.A.	S. Africa: Border Drug, Gardners.
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SPECIAL FIGURE SKETCH CARD OFFER ETC.

Discharged from the Army, wounded and unfit for further service, I have re-opened my business, and as a Special Advt. Line offer the following for a few weeks only :—

- 1 16x10 Card with Sketch for Trench Powder, Saccharin Tablets, Corn Paints, Shampoo Powders, etc.
- 2 12x9 Cards for any 'Prep.', NO Sketch, all in smart style

For 5/- Carr. paid
F. MERTEN, 112 Warham Road, HARRINGAY, LONDON, N. 4.
(Late F. M. & Co., of Holloway.)

PERFUMERS! SHORTAGE OF LABOUR

Advertisers are prepared to undertake the blending of Shampoo, Tooth, and other Toilet Powders, in large or small quantities at lowest possible rates. Good workmanship and prompt delivery. Ingredients supplied if desired at lowest market prices. Write, stating requirements—

MARTIN & CO., 71 City Road, Finsbury, London, E.C. 1

TEA SWEETENERS. "Aspanco" Brand

The Saccharin Tablet "par Excellence."

We were the original advertisers of this line twelve months ago, and have not changed our quality. We have hundreds of satisfied customers.

Any quantity supplied.

5,000 lots and upwards, 16/- per 1,000

Smaller quantities, 16/3 per 1,000

Registered Post Free. Cash with Order.

A. S. PRICE & CO., LTD., Blackheath, Birmingham.

SACCHARIN TABLETS

1 lb.	... £7 8 0	per lb.
2 lb.	... £7 7 6	"
5 lb.	... £7 7 0	"

Cash with Order. Immediate Delivery Guaranteed. Finest Tablets Made.

A. WALTON, 40 Washington Street, Bradford.

"HOLMIER" BRAND COMPOUND SACCHARIN TABLETS.

One is equal to a teaspoonful of sugar.

Made with American 550 Saccharin. 16/- per 1,000 Reg. post paid.

Cash with order. Immediate Delivery.

MEYER, Manufacturing Chemists, BIRMINGHAM.
GRAVELLY HILL,

COTTON WOOL 2/2 per lb.

in 1 cwt. lots; 56 lb. at 2/2. Carriage paid. Cash with order. Wrappers 3/6 extra, and are returnable. The wool is white, absorbent, and interleaved. Sample for stamp. Special price for bigger lots. Super quality at reasonable prices.

JAS. Q. MILLS, Chemist, Platt Bridge, WIGAN

Original - Attractive - Profitable

TWINKO

(Antiseptic.)

The Non-Abrasive
HAND CLEANSER

CLEANS in a
twinkle the hands
of munition workers,
mechanics, motorists,
gardeners, house-
keepers and all man-
ual workers. Suitable
for most delicate
skins.

In Dredger Tins

4 $\frac{1}{2}$ d. & 7 $\frac{1}{2}$ d.

Makes a Striking Display.

Fills a long felt want.

Sells Quickly.

**YIELDS A GOOD
PROFIT.**

VINOLIA COMPANY LIMITED,
LONDON—PARIS

OFFICE AND WORKS: BEBINGTON, CHESHIRE.

Tw. 1—29.



DUBARRY'S NEW TOOTH PASTES

SHOW CENT. PER CENT. PROFIT.

PROMPT DELIVERY from STOCK.

Chemist's own Name & Address cannot be printed on these four Tooth Pastes.

THE GET-UP IS SUPERB. THE TOOTH PASTES ARE ABOVE CRITICISM.

RETAIL

1/3

PER
TUBE



WHOLESALE

7/6

PER DOZ.
Net,
in Gross Lots

SMALLER
QUANTITIES

8/- Per
Dozen

GLYNTOS DENTAL CREAM

The favourite, with a delightful Eau de Cologne flavour. The sales will soon be greater than any other proprietary Tooth Paste.

PERLYSIA TOOTH PASTE

Made from the popular American formula. A white tooth paste, packed in superb embossed cartons.

MENTHILLA DENTAL CREAM

A delightful, refreshing Tooth Paste containing Menthol.

GLY-TYMOL TOOTH PASTE

An improved form of the popular Thymol Tooth Paste.

Sole Wholesale Depot :

CARRIAGE PAID ON £2 ORDER.

THE STANDARD TABLET CO. LTD. HOVE.